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DEPARTMENT OF ELECTRICITY

RADIO COMMUNICATIONS
(VOICE, DIGITAL, TELEMETRY)

DOCUMENTS DEPT.

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ANNUAL REPORT ENDING JUNE 30, 1980



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November 7, 1980



Mr. Roger Boas
Chief Administrative Officer
Room 289 City Hall
San Francisco, California

Dear Mr. Boas:

I am pleased to submit the annual report of the Department of Electricity for the fiscal year 1979-80 in accordance with Section 3.501 of the Charter of the City and County of San Francisco.

This Department continues to fulfill its responsibilities and performs its functions through organization into four divisions:

Administration
Radio Division
Electrical Division
Mechanical Division

This Department is primarily a service entity and provides all necessary maintenance, repair and support to various city departments in the areas of:

Parking Meters
Traffic Signals
Radio Communications
Wire Lines/Teletype Communications
Fire Alarm Box Systems/Dispatch and
Command and Control Functions
Overhead and Underground Wire and Cable Systems
Air Raid Siren Systems
Operation of Fire Department Switchboard
Other Ancillary Support Functions

All of the work of the Department was to be accomplished with the 115 budgeted employees; however, only approximately 104 employees were available throughout the year. Personnel shortage was caused by the inability of the City to recruit and retain qualified personnel primarily in the crafts.

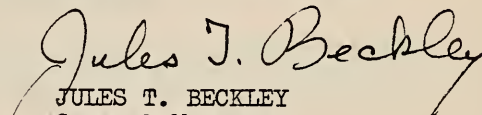
The cost of operating the Department of Electricity during fiscal year 1979-80 was \$3,086,424. This is \$276,127, or 9.83% greater than for the prior fiscal year. This increase was due primarily to increased labor costs.

It is only through the dedication of the heads of each of our Divisions and each of our employees that it has been possible for this Department to provide an acceptable level of service to the various departments and to the citizens of San Francisco.

The end of the fiscal year coincided with the retirement of Mr. Burton Dougherty, for many years the General Manager of the Department of Electricity, and two other key members of this Department. The loss of their expertise and leadership will be keenly felt for some time to come.

I sincerely appreciate the help and understanding extended by you and your staff and assure you of our continued cooperation and support.

Respectfully submitted,


JULES T. BECKLEY
General Manager
Department of Electricity

ANNUAL REPORT
DEPARTMENT OF ELECTRICITY
CITY AND COUNTY OF SAN FRANCISCO

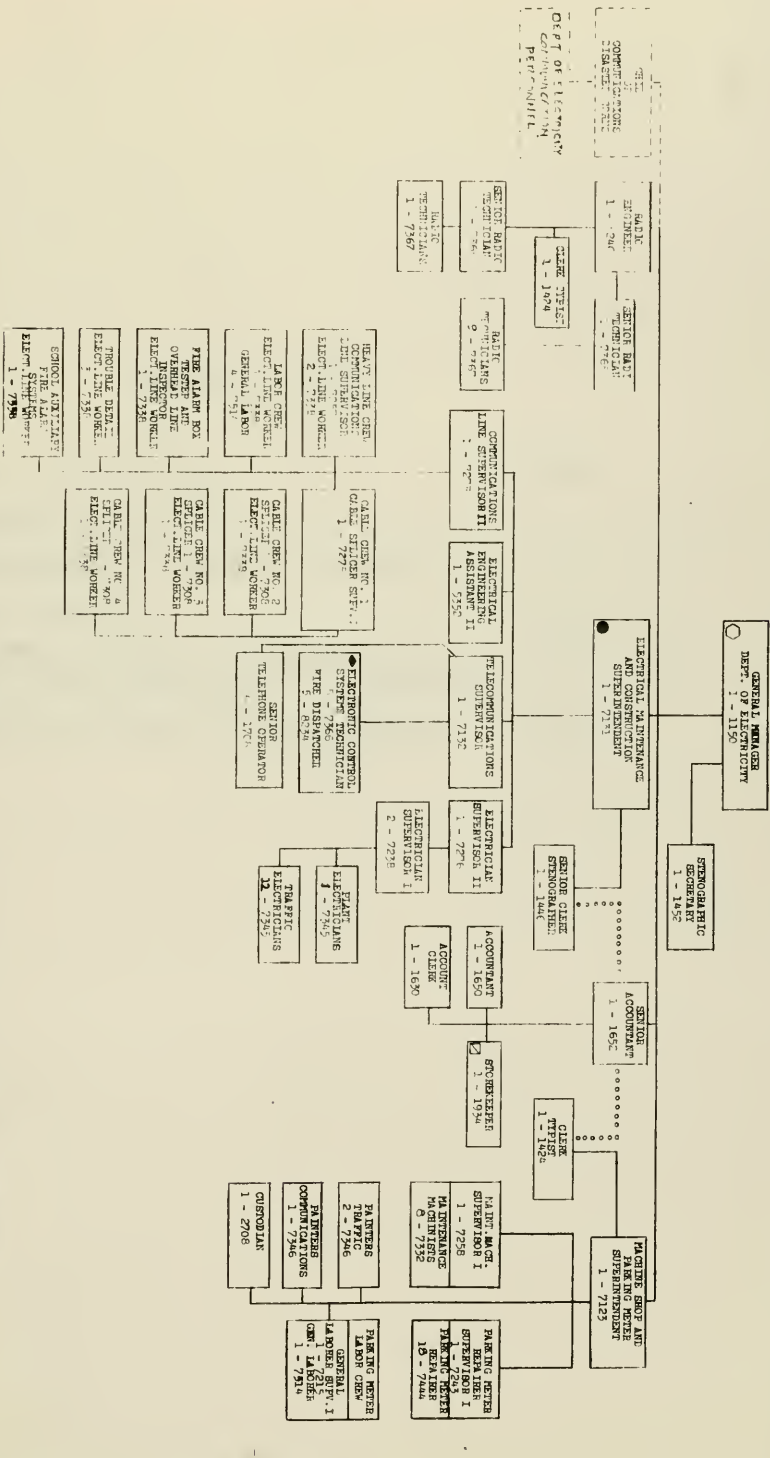
FISCAL YEAR 1979 - 1980

HON. DIANNE FEINSTEIN
MAYOR

ROGER BOAS
CHIEF ADMINISTRATIVE OFFICER

JULES T. BECKLEY
GENERAL MANAGER

GENERAL ORGANIZATION CHART FOR THE DEPARTMENT OF ELECTRICITY



ACTS FOR THE GENERAL MANAGER IN HIS ABSENCE. ADDRESS CHIEF
MANAGER AS REQUIRED.

☒ **STORAGE** ASSIGNED TO THIS DEPARTMENT BY THE PURCHASER OF SUPPLIES

GENERAL MANAGER FUNCTIONS AS THE CHIEF OF COMMUNICATIONS
DIVISION UNDER DISASTER COMPS OPERATIONS.

DIRECT DIVISION

DISASTER COMPS OPERATIONS

DIRECT SUBSTITUTION ON APPROVAL.

REPLACING THE DISPATCHES AS THEY ARRIVE

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ACCOUNTING (ADMINISTRATION)

The Senior Accountant, under the direction of the General Manager is responsible for the Accounting (Administration) Division. The Division is composed of three Department of Electricity personnel and one Storekeeper from the Purchasing Department. In addition to Accounting functions, various administrative tasks are assigned which require a portion of the services of *two additional personnel. The personnel are as follows:

- 1 - 1652 Senior Accountant
- 1 - 1650 Accountant
- 1 - 1630 Account Clerk
- 1 - 1934 Storekeeper
- *1 - 1446 Senior Clerk Stenographer
- *1 - 1424 Clerk Typist

For functional use, the Division maintains an orderly system of recording costs and revenues which are compiled and reported to management in timely periodic reports.

For cost control of labor, material, services, and equipment, the Division maintains approximately seventy cost accounts, as well as accounting for individual budgetary line items. Also, the Division, during the Fiscal Year 1979-80, compiled costs for 130 individual work orders, special jobs, and projects, a decrease of 43% as compared to Fiscal Year 1978-79.

During 1979-80, one hundred and sixty-two billings, in the amount of \$ 124,877.00 were made to cover Special Jobs, Installation Funds, and damages to City property. Comparison with previous years is as follows:

	<u>1979-80</u>	<u>1978-79</u>	<u>% Increase (Decrease)</u>
No. Billings	162	187	(13.37%)
Amount of Billings	\$124,877.00	\$109,203.00	14.35%
Damages Billings	92,031.00	64,169.00	43.42%
Other Billings	32,846.00	45,034.00	(27.06%)

ACCOUNTING (ADMINISTRATION)

ESTIMATED AND COMPARATIVE REVENUE

	Estimated Revenue <u>1979-80</u>	Collections-Cash Received <u>1979-80</u>	<u>1978-79</u>	And % Increase (Decrease)
Damage Claims - Traffic Signals (Note A)	\$23,000.00	\$26,476.00	\$33,710.00	(21.46%)
Damage Claims - Parking Meters. (Note B)	6,000.00	6,225.00	4,200.00	48.21%
Damage Claims - Police & Fire Alarm Facilities. (Note C)	3,000.00	2,500.00	3,601.00	(30.57%)
Housemoving Elec- trical Inspection. (Note C)	35.00	99.00	103.00	(3.88%)
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
TOTAL	\$32,035.00	\$35,300.00	\$41,614.00	(15.17%)
	<u> </u>	<u> </u>	<u> </u>	<u> </u>

COMMENT

Collections include all Department of Electricity Revenue collected by this Department or another.

NOTES

- (A) Recovery of damages is deposited to General Fund.
- (B) Recovery of damages is deposited to General Fund.
- (C) Collections offset actual cost for each inspection of overhead line wires.

RADIO DIVISION

ANNUAL REPORT 1979 - 1980

SUMMARY OF ACTIVITIES AND RESPONSIBILITIES

The Radio Division of the Department of Electricity is responsible to:

Assure that all electronic communications equipment is installed, maintained and operated in compliance with existing FCC rules and regulations.

Install, repair, maintain and inspect electronic communications equipment owned and operated by the City and County, or any Department or agency thereof.

Make recommendations for proposed electronic communications systems and installations at the request of the Board of Supervisors, or any City or County Department.

Function as technical adviser to all departments concerning electronic communications facilities, existing or proposed.

Provide adequate representation before the Federal Communications Commission in matters affecting the use of radio.

Responsible for obtaining proper construction permits and licenses issued by the FCC.

Prepare such Rules and Regulations affecting operational procedures and conduct, as are necessary, to bring about conformity with Federal Communications Commission requirements.

Investigate proposed expenditures for electronic communications facilities.

Assist and advise the Director of Purchasing and Services in standardizing materials, supplies and equipment used for electronic communications.

Make necessary recommendations on all plans and specifications for construction of new installations for electronic communications by any department or agency of the City and County.

The personnel assigned to the Radio Division were as follows:

Radio Engineer	1
Senior Radio Technicians	2
Radio Technicians	<u>11</u> (1 vacancy)
Total	14 (1 vacancy)

RADIO DIVISION
ENGINEERING SECTION

The function of the Engineering Section is project planning, project scheduling, budget development, application of electronic communications science, planning disaster communications, monitoring compliance with Rules and Regulations of the Federal Communications Commission, electronic communications system design, contract preparation, requisitioning and coordination of electronic communications requirements for City Departments.

Work accomplishments during the past fiscal year:

Implemented contract specifications on the Fire Information Radio System (FIRS) and evaluated vendor's installation program.

Updated Emergency Services disaster planning guide and warning annex and supported communication requirements.

Upgraded satellite receiver sites of the Police Instantaneous Communications System. (PIC)

Advised Municipal Railway on electronics and communications matters in support of expanding their communication system.

Assisted Wastewater management agency in procurement of radio electronics equipment to support Wastewater's operational requirements.

Work on the Sheriff's intercommunications system equipment is continuing and the project is nearing completion.

Court security communications system equipment has been purchased and partial installation has been effected.

Work has continued on the Health Department two-channel coordinate Satellite Receiving System.

Researched, selected and coordinated radio frequency channel availability in the Bay Area and Northern California on all new and modified radio facilities.

Applied for and obtained Federal Communications Commission approval and authorization for new radio licensing requirements to support programmed equipment.

Maintained current status, altered, renewed and modified existing FCC licenses and authorizations.

Provided frequency coordination and test data to all northern California entities seeking new channels for planned systems.

RADIO DIVISION

Engineering Section (Cont'd.)

Provided support to the Bay Area EMS Communications Coordination Committee in program planning of Bay Area microwave.

We have experienced difficulty during this past year in maintaining an adequate employment level of our skilled technician positions. This has affected our productivity and has lessened our responsiveness to installation and maintenance matters. Decreased cost effectiveness has resulted in having to farm out work rather than having been able to accomplish the tasks within our own organization. Our vigilance and concern on this subject will continue until an adequate solution is found.

MAINTENANCE SECTION

I. Mobile Communications Units Serviced in the Radio Shop:

Vehicle Repairs	1371
Vehicle Installations	59
Vehicle equipment removals	80
Mobile Radio bench repairs	552
Portable equipment repairs	906

II. Federal Communications Commission Calibrations:

(Includes vehicles, portable units and base stations)

Units checked and calibrated 1635

III. Special Projects:

Various, consisting mainly of modifications to new or existing electronic communications equipment and acceptance checks of new electronic communications equipment for the Police, Fire, Water, Health and Emergency Services. 131 projects.

IV. Department Services: (Other than preventive maintenance at the following locations)

POLICE DEPARTMENT

Hall of Justice	127
District Base Stations (Police Stations)	98
Central Radio Station	16
Satellite Receivers	12

RADIO DIVISION

MAINTENANCE SECTION (cont'd.)

Department Services: (cont'd.)

FIRE DEPARTMENT

Central Fire Alarm Station	42
Central Radio Station	14
Secondary Base Stations (Fire Houses, and other Battalion or Division Houses)	90
District Base Stations (Battalion or Division Headquarters)	79
Heavy apparatus (Field repairs)	122
Field repairs to (2) Fire Boats.	2
Satellite Receivers	12

MUNICIPAL RAILWAY

Base Station repairs	2
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RECREATION & PARKS

Maintenance Yard	2
McLaren Lodge	1

SHERIFF

San Bruno-Security System	3
City Hall	2
Hall of Justice	1

WATER DEPARTMENT

Repairs at Newcombe yard	5
Repairs at Mason St., Control and Lake Merced.	10
Repairs at Central Radio Station	2

HEALTH DEPARTMENT

101 Grove St.	65
Repairs to Ambulances	87
General Hospital	20
Laguna Honda Hospital	3
Central Radio Station	4

RADIO DIVISION

MAINTENANCE SECTION (cont'd.)

Department Services: (cont'd.)

DEPARTMENT OF ELECTRICITY

Central Fire Alarm Station	1
Central Radio Station	2
901 Rankin St.	4

DEPARTMENT OF PUBLIC WORKS

Central Radio Station	4
Army St. Consoles	15
City Hall	1

CITY HALL

Supervisors PA system(s)	15
Repairs or adjustments.	

MOBILE TWO-WAY RADIO MAINTENANCE

<u>Department</u>	<u>No. of Radio equipped vehicles or Portables</u>	<u>Total Radios maintained</u>
<u>POLICE</u>		
Cars & Trucks	394	
Solo Motorcycles	115	
Servicar Motorcycles (including scooters)	106	
Portables (low-band high-band & UHF)	954	
Command Cars	1 (8 radios)	1577
<u>FIRE</u>		
Cars & Apparatus	204	
Fire Boats	2 (4 radios)	
Command Cars	1 (6 radios)	
Portables	87	
Portables (citizen band)	3	
Portables (paging receivers)	8	
Portables (VHF)	13	325
<u>WATER</u>		
Cars & Trucks (includes (1) Game Warden's car.)	135	
Portables (low-band)	3	
Portables (paging receiver)	1	139

RADIO DIVISION

MOBILE TWO-WAY RADIO MAINTENANCE (cont'd.)

<u>Department</u>	<u>No. of Radio equipped vehicles or Portables</u>	<u>Total Radios maintained</u>
<u>PUBLIC WORKS</u>		
Cars & Trucks	95	
Portables (citizen band)	13	
Portables (lo-band)	4	
Paging Receivers UHF & VHF	56	
Portables WW & UHF	23	191
<u>ELECTRICITY</u>		
Cars & Trucks	33	
Portables (citizen band)	2	35
<u>HEALTH</u>		
Ambulances	14	
Cars	3	
Personnel carriers (MAP)	2	
Portables	80	
Ambulatory & transportation (Station Wagons)	5	104
<u>EMERGENCY SERVICES</u>		
Cars	3 (6 radios)	
Communication Van	1 (13 radios)	
Portables (citizen band)	3	
Portables (VHF)	1	23
<u>CORONER</u>		
Cars & Ambulances	7	7
<u>SHERIFF</u>		
Vehicles	40	
Portables	22	62
<u>RECREATION & PARKS</u>		
Vehicles	27	
Portables (citizen band)	3	
Portables (high-band)	1	31
<u>MAYOR</u>		
Cars	2	2

RADIO DIVISION
MOBILE TWO-WAY RADIO MAINTENANCE (cont'd.)

<u>Department</u>	<u>No. of Radio equipped vehicles or Portables</u>	<u>Total Radios maintained</u>
<u>BOARD OF EDUCATION (SFUSD)</u>		
Trucks	6	
Cars (Portable adapters)	9	
Page Receivers	12	
Portables	19	46
<u>HOUSING POLICE</u>		
Cars	8	
Portables	10	18
<u>SAN FRANCISCO COMMUNITY COLLEGE DISTRICT</u>		
Portables	14	
Cars	1	15
<u>OPERA HOUSE</u>		
Portables	2	2
<u>POLICE CHAPLAINS</u>		
Cars	4	4
<u>POLICE COMMISSION</u>		
Cars	4	4
<u>FIRE COMMISSION</u>		
Cars	1	1
<u>DISTRICT ATTORNEY</u>		
Portables	7	
Cars (6 Portable adapters)	13 (14 Radios)	
City Attorney (car)	1	<u>21</u>
GRAND TOTAL		2,607

RADIO DIVISION

MAINTENANCE SECTION

BASE RADIO STATION MAINTENANCE

POLICE DEPARTMENT

At Central Radio Station-	6 low band units
	3 high band units
	10 UHF units
	1 microwave terminal
At Bernal Heights Stn.-	2 low band units
At the Hall of Justice-	2 high band units
	1 UHF unit
	1 microwave terminal
At Police Stations, Pistol Range & Stables-	10 low band units
	9 UHF units
At the Bank of America-	2 UHF units
At McLaren Park-	2 UHF units

FIRE DEPARTMENT

At Central Radio Station-	2 low band units
	3 high band units
	1 microwave terminal
At Central Fire Alarm-	1 high band unit
	1 microwave terminal
At Fire Houses-	16 low band units

EMERGENCY SERVICES

At the Emergency Operating Center	2 low band units
--------------------------------------	------------------

WATER DEPARTMENT

At Central Radio Station-	2 low band units
	1 UHF unit
At Bernal Heights-	2 low band units
At Lake Merced-	1 low band unit

*HOUSING AUTHORITY

At Central Radio Station-	1 UHF unit
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HOUSING POLICE

Headquarters-	1 low band unit
	1 UHF unit

*Federal Communications Commission Calibrations ONLY.

RADIO DIVISION

BASE RADIO STATION MAINTENANCE: (cont'd.)

MUNICIPAL RAILWAY

At Central Radio Station- 3 low band units

HEALTH DEPARTMENT

At 101 Grove St.- 1 high band unit, 2 microwave terminals

At General Hospital- 2 high band units & 1 UHF unit

At Central Radio Station- 2 high band units, 10 UHF units &
2 microwave terminals

At Laguna Honda Hospital- 2 high band units

At 2401 Keith St.- 1 UHF unit

BOARD OF EDUCATION (SFUSD)

At Central Radio Station- 1 UHF unit

At Toland St. warehouse- 1 UHF unit

SHERIFF'S DEPARTMENT

At Central Radio Station- 1 UHF unit (Court security)

At the Hall of Justice - 1 high band unit
(County Prison)

At San Bruno - 1 high band unit
(County Prison)

City Hall- 1 high band unit

General Hospital- 1 high band unit

DEPARTMENT OF PUBLIC WORKS

At Central Radio Station- 2 low band units

At Central Radio Station- 1 UHF unit (Wastewater)

DEPARTMENT OF ELECTRICITY

At Central Radio Station- 2 high band units

At Central Fire Alarm- 1 high band unit

At 901 Rankin St.- 1 high band unit

PARKS & RECREATION

At McLaren Lodge- 1 high band unit

At the maintenance yard - 2 high band units
in Golden Gate Park

TOTAL UNITS 127

RADIO DIVISION

PERCENTAGE OF LABOR ALLOCATED

FISCAL YEAR 1979 - 1980

<u>DEPARTMENT</u>	<u>%</u> <u>7368</u>	<u>%</u> <u>7367</u>	<u>HOURS</u> <u>OVERTIME</u>
Police	37.68	50.84	36
Fire	53.62	29.03	--
Dept. of Public Works	.72	2.60	--
Electricity	.36	2.72	--
Health	7.62	9.46	--
Supervisors	----	.08	--
Municipal Railway	----	.64	--
Coroner	----	.01	--
Water Dept.	----	1.92	--
Harbor Police	----	----	--
Disaster Corp.	----	1.76	--
Mayor	----	.01	--
Sheriff	----	.93	--

Hours Overtime	36
Days (Temporary Employee)	306
Days (Vacation Relief)	0

ELECTRICAL DIVISION

The Electrical Division, under the general administrative direction of the General Manager, is responsible for two major departmental functions: the maintenance and operation of Fire Alarm Non-Radio Communications and the Traffic Signal System as follows:

Fire and Police Non-Radio Communications

The primary responsibility under this function is the maintenance and operation of the Municipal Fire Alarm System. This includes the following:

A computer-assisted Fire Alarm Dispatch System consisting of 2 on-line computers, a wall-type electronic status board, 3 audio-dispatch consoles, a system control console, uninterruptible power supply; electronic consoles in all 44 stations, Ashbury Tank, Jones Tank, Pump Station I, Pump Station II, Bureau of Equipment, Fire Department Headquarters, Fire Chiefs' Quarters, and the Department of Electricity; a telephone switchboard, a box alarm switchboard, 2 - 75 kilowatt diesel generators, associated switchgear, main batteries, and other related electrical and communications equipment in the Central Fire Alarm Station.

Police Communications - Maintenance and Repair

Police Teletype System with two transmitters and control console in the Hall of Justice, and receivers located in Police Stations and Bureaus of the Police Department.

Police Ring-In Telephone System with locals to various bureaus within the Hall of Justice, Police Stations and call boxes on the City streets.

Outside Plant - Fire and Police

This Division installs, maintains and replaces overhead lines and underground cables throughout the City's 49 square mile area, which includes:

Circuits from the Central Fire Alarm Station to 2028 fire boxes on the City streets and to 44 Fire Stations and 9 associated agencies of the Fire Department; also, circuits from the Hall of Justice to 468 call boxes and to all Police Stations in the City.

This underground cable system also provides essential communication circuits interconnecting the Hall of Justice, Central Radio Station and the Department of Electricity Plant facility at 901 Rankin Street.

ELECTRICAL DIVISION

Personnel assigned to Electrical Division:

- 1 - 7131 Electrical Maintenance & Construction Supt.
- 1 - 5352 Electrical Engineering Assistant II
- 1 - 7132 Telecommunications Supervisor
- 3 - 7366 Telecommunications Technicians
- 1 - 8236 Chief Fire Alarm Dispatcher
- 3 - 8234 Fire Dispatchers
- 4 - 1708 Senior Telephone Operators
- 1 - 7273 Communications Line Supervisor II
- 1 - 7257 Communications Line Supervisor I
- 1 - 7275 Cable Splicer Supervisor I
- 2 - 7308 Cable Splicer
- 10 - 7338 Electrical Line Workers
- 1 - 7276 Electrician Supervisor II
- 2 - 7238 Electrician Supervisor I
- 13 - 7345 Electricians
- 4 - 7514 General Laborers

During Fiscal Year 1979-80 we have not been able to provide the quality of maintenance to which the City has been accustomed on our Fire Alarm, Police Communication and Traffic Signal Systems due to continuous vacancies in our Electrical Classes which can be attributed to the inability to recruit linemen, electricians and cable splicers at the rates being paid by the City. To further compound the situation, we have not been funded for maintenance for the Police Ring-In System. We have attempted to operate the System, but are falling further behind in maintenance due to the lack of funding and adequate personnel. In spite of shortages, we have expanded this System by installing ring-in phones in the Mayor's Office (2), Mayor's home (2), and in the President of the Board of Supervisor's Office. This was done for the Mayor's Emergency Telephone System.

These personnel shortages will continue until wage schedules are established that will attract personnel from the private sector.

ELECTRICAL DIVISION ACTIVITIES:

Central Fire Alarm Station - 24-Hour Operation

Operated telephone switchboard which provides service to all units and bureaus of the Fire Department and the Department of Electricity.

Monitored:

A box alarm switchboard connected to all street fire alarm boxes. Alarms received were transmitted thru the computer which provides the Fire Department assignment officer with a recommended assignment for dispatch.

ELECTRICAL DIVISION

A computer-assisted fire alarm dispatch system with teletype and voice announce consoles in 44 Fire Stations and associated agencies of the Fire Department to insure efficient operations.

Malfunctions noted were corrected or referred to supervisory personnel for follow-up and repair.

Hot lines and registers from private Central Station Fire Alarm companies. Alarms received were transmitted to the Fire Department Assignment Officer for dispatch to designated Fire Stations.

National Alert Warning System. (NAWAS)

Air raid attack warning system. Tested sirens on a weekly basis to insure satisfactory operation.

Conducted scheduled tests on fire alarm box circuits, dispatch circuits, and emergency power equipment.

Coordinated on a continuous basis, testing and repair activity with field personnel, including Telecommunications Technicians, Linemen, Cable Splicers and Electricians.

Personnel at the Central Fire Alarm Station, in addition to the usual complaints on the Fire Alarm System, after normal working hours and on Saturday, Sunday and Holidays; also receive complaints on the Traffic Signal System, Police Communication System, Air Raid Siren System, and the City and County Radio System.

They dispatch on-duty personnel, or call our standby personnel necessary to make repairs and restore service as required.

Summary of complaints received by Dept. of Electricity personnel at Central Fire Alarm Station during the fiscal year:

Fire Alarm Circuits	268
Fire Alarm Boxes	74
Police Call Box Locals	5
Police Call Boxes	21
* SA/TPE Fire Station Equipment	353
**SA/TPE CFAS	136
Fire Station Line Trouble	62
Police Teletype	1
Radio Equipment	14
Civil Defense Sirens	1
Traffic Signals	2176
Miscellaneous Equipment	59
	<u>3170</u>

* Teletype & Voice Announce Consoles in Fire Stations.

** Command & Control Equip.-Central Fire Alarm Station.

ELECTRICAL DIVISION
COMMAND AND CONTROL EQUIPMENT

Central Fire Alarm Station:

Responded to complaints and cleared 111 cases of trouble on numerous subsystems and components of the Command and Control System.

Scheduled routing maintenance on Command and Control Systems and components: 396

Fire Station Equipment:

Responded to complaints and cleared 313 cases of trouble on fire station terminals which include teletype and voice announce consoles in 54 locations.

Scheduled routine maintenance on fire station terminals: 324

FIELD OPERATIONS

Fire Alarm Boxes - Installations, Relocations and Removals:

- 16 - New installations.
- 10 - Old style boxes replaced w/modern 3-fold movements.
- 4 - Removed.
- 13 - Relocated.
- 40 - Converted from overhead to underground.
- 100- School Fire Alarm Boxes replaced with blank front shells. This program will help curtail the false alarm problem as school fire alarm boxes will be set off by auxiliary fire alarm system only. This program has been completed.

Repaired or replaced Fire Alarm boxes damaged by vehicles at 31 locations.

Made repairs or replacement to Fire Alarm box standards at 40 locations.

Repaired damages to overhead or underground facilities at 7 locations.

Removed Fire Alarm boxes to shop for routine maintenance at 106 locations.

Repaired 18 Fire Alarm boxes in field.

Pulled for test 2499 Fire Alarm boxes.

ELECTRICAL DIVISION

Auxiliary Fire Alarm Systems:

- a. Conducted 903 tests on auxiliary Fire Alarm Systems in 129 public schools.
- b. Responded to 78 trouble complaints on school auxiliary systems.

Assisted following agencies with the testing of their auxiliary Fire Alarm Systems:

Municipal Railway Kirkland Yard
San Francisco Port Authority
Department of Public Works - 2323 Army Street
State of California Electricians - 1st & Mission Sts.
Hunter's Point Shipyard
University of California Hospital

Conducted monthly test of Broadway Tunnel and Hall of Justice auxiliary systems.

The Electrical Division also approves and supervises the connecting and testing of auxiliary Fire Alarm Systems to the municipal system by Auxiliary Fire Alarm Companies legally authorized to do business in San Francisco.

Police Communications - Maintained and repaired as required:

Police Telephone Switchboard with 89 telephones in the Hall of Justice, Police Stations, and other City offices, and 468 call boxes on the City Streets.

Chief of Police private telephone system.

City and County Jail telephone system which includes 108 visitors telephones.

Central Radio Station:

Maintained and conducted regular tests on the two emergency generators.

Maintained, repaired and replaced radio station lighting and electrical equipment as necessary.

Checked Radio Tower aircraft warning lights daily and reported to the Fire Dispatcher for entry in the log as required by F.C.C. regulations.

ELECTRICAL DIVISION

Central Radio Station - Continued

Replaced aircraft warning lamps and serviced photo cell equipment as required.

Installed, relocated, repaired or replaced radio antennas systems as requested by Radio Engineer.

Conducted security checks of the Radio Station area on a nightly basis.

Air Raid Warning System:

Tested, maintained and repaired the City's Air Raid Siren System consisting of control equipment in the Central Fire Alarm Station with leased lines to 53 air raid sirens throughout the City.

Overhead Lines and Underground Cables:

Transferred overhead Fire Alarm and Police Communications circuits to new poles at 37 locations in connection with the work program of the P.G. & E. and P.T. & T. companies upon whose poles we occupy space.

Located and cleared trouble on Police Telephone circuits at 76 locations.

Made repairs or replacements to Police Telephones at 13 locations.

Performed routine maintenance to overhead facilities at 184 locations.

Replaced crossarms on poles at 46 locations.

Replaced 3,300 feet of overhead line wire.

Repaired, spliced and cutover underground cable at 110 locations.

Cleared trouble on Fire Alarm circuits at 260 locations.

Cleared trouble on Command & Control circuits to Fire Houses at 53 locations.

Responded to and made repairs to 3 teletype machines in Police Stations.

Replaced or installed in underground districts 24,320 ft. of various size cables.

ELECTRICAL DIVISION

Overhead Lines and Underground Cables: Continued

Installed 315' of various size conduits in City streets.

Responded to and made repairs to 6 automatic light circuits in Fire Stations.

Surveyed one housemoving route and cleared overhead circuits.

Installed underground terminal for test purposes at one location.

Made corrections to overhead infractions of General Order 95 at 20 locations at request of Public Utilities Commission.

The following Special Jobs were completed:

SJ 286 - Hyde Street - Golden Gate to McAllister:
Pull in new traffic master cable.

SJ 291 - CATV - Raise crossarms at various locations
for clearance.

SJ 294 - Relocate Fire Alarm Box 1136 to clear construction area.

SJ 242 - Galewood Subdivision - Pull in cable and
install two new Fire Alarm boxes.

SJ 245 - Market and Beale - Restore Fire Alarm box
on completion of construction.

SJ 267 - Marina and Scott - Reroute facilities to
clear pile driver.

SJ 285 - Market and Romain - Relocate conduit for
driveway to new building.

Garfield School - Restore Fire Alarm box after completion
of new school. Connect and test auxiliary system.

Bryant School - Restore Fire Alarm box after completion
of new school. Connect and test auxiliary system.

ELECTRICAL DIVISION

The following projects were completed under Work Orders issued:

- WO 0-1402 - Telegraph Hill - Stages I and II. Convert from overhead to underground.
- WO 0-1099 - Midtown Terrace - Stage II. Convert from overhead to underground.
- WO 0-0949 - Evans Avenue - Phelps to Rankin. Converted from overhead to underground to clear cleanwater plant.
- WO 0-1098 - Evans - Third to Phelps. Converted from overhead to underground due to sidewalk narrowing.
- WO 0-1149 - Marina District - Stage III. Converted from overhead to underground.
- WO 0-1100 - Pacific Heights - Stage I. Converted from overhead to underground.

Work was also performed on the following work orders:

- WO 0-0958 - 3rd Street. Cargo to Custer. Relocating facilities for Cleanwater Program.
- WO 0-1150 - India Basin Project. Installed cable and fire alarm boxes as required to keep up with street and building construction.

Checked plans submitted by other City Departments, Utility Companies, Developers, Street Improvement Contractors and various other agencies. Marked underground conduits and ducts as required. Estimated costs and submitted plans to auxiliary Fire Alarm Companies for connections to the Municipal System. Repaired damages to our underground and overhead facilities and billed responsible parties involved.

ELECTRICAL DIVISION
TRAFFIC SIGNAL MAINTENANCE

The Electrical Division is responsible for the maintenance and operation of 913 intersections of traffic signals and 26 flashing beacon intersections on a 24-hour basis; this includes:

Thousands of vehicle signals, pedestrian signals, detection devices, control apparatus, and miles of underground control cable and associated master controllers for synchronizing entire networks of signal systems. During the fiscal year, this system generated 2066 complaints of traffic signal malfunction. These were responded to as soon as possible thru radio dispatch, by personnel on duty.

Our primary responsibility is to provide preventative maintenance to eliminate as much as possible any equipment failure. At one time we had a program by which dispatchers and controllers were brought into the shop for routine maintenance. Due to the lack of personnel it has been increasingly difficult to continue this program. The length of time between shop servicing has been extended from approximately 2 years to 4 years. This lack of servicing has resulted in more complaints and also creates a problem for field personnel. It is hoped this situation can be corrected in the future, as proper maintenance of the traffic signal system is vital to the citizens of San Francisco. We are also continuing with the group lamp replacement program whereby all signal lamps at each intersection are replaced at annual intervals.

One of our major problems is the damage done to our traffic signals by vehicles. During the fiscal year, on 101 occasions, traffic signal standards or controllers were knocked down by vehicles. The repair, or replacement of this equipment, causes a heavy drain on our budget as funds recovered from the responsible parties are returned to the General Fund.

During the fiscal year, traffic signals were installed at the following intersections and placed in service:

Bay and Larkin
Bay and Leavenworth

During the fiscal year, the following intersection was restored in the traffic signal network:

Post and Broderick Restored to service: 8-13-79

ELECTRICAL DIVISION - TRAFFIC SIGNAL MAINTENANCE

During the fiscal year, the maintenance of the following intersections was taken over by this Department from the Port of San Francisco:

Embarcadero and Market
Embarcadero and Mission
Embarcadero and Howard

Work Orders amounting to \$9,724.54 were performed for other City Departments involving installations and relocations of traffic signals.

Special Jobs amounting to \$10,596.39 were performed for private contractors, involving relocation of traffic signals to facilitate building construction.

The following jobs were completed under Work Orders issued:

- WO 0-1156 - Market and Romain - Installed flashing beacon.
- WO 7-3816 - Ocean and Phelan, SE, - Relocate pull box and 10' pole.
- WO 0-1384 - Columbus, Chestnut and Taylor - Modified controller cabinet and installed crossbuck signals for cable cars.
- WO 0-1418 - 7th and Market - Installed audible signals for blind pedestrians.

The following Special Jobs were completed:

- SJ 250 - NW Clay and Sansome - removed temporary signals and restored signals to permanent locations.
- SJ 279 - California and Polk, SW - installed temporary signal during construction on this corner.
- SJ 260 - NW Clay and Montgomery - removed temporary signals and restored signals to permanent locations.
- SJ 255 - NE Main and Howard - removed temporary signals and restored signals to permanent locations.
- SJ 253 - SW California and Front - removed temporary signals and controller and restored to permanent locations.

ELECTRICAL DIVISION - TRAFFIC SIGNAL MAINTENANCE-ACTIVITIES

1979-1980

FIELD OPERATIONS

Checked Operations	647
Controllers Changed	332
Relays Changed	349
Coordination Units Changed	24
Intersections Mass Relamped	702
Master and Cascade AM Offsets Checked	112
Master and Cascade PM Offsets Checked	411
Dial Units Changed	529
Damaged Conduit and Wiring Repaired	141
Detector Pads Changed, 6 Ft.	2
Steel Pole, 10 Ft. changed	60
Marbelite Pole, 10 Ft. changed	31
Signal Heads Changed	313
Signal Lens and Reflectors Replaced	95
Signal Heads Realigned	434
Visors Replaced	152
Visors Repaired	172
Flashers Changed	162
Controller Cabinet Replaced	27
Controller Cabinet Repaired	77
Pedestrian Signals Repaired	515
Checked Timing and Placed Timing Cards	85
Coordination Units Repaired	25
Cable Car Turn Signs Checked	156

ELECTRICAL DIVISION - TRAFFIC SIGNAL MAINT.-ACTIVITIES

LAMP, TUBE AND TRANSFORMER REPLACEMENTS:

WAIT Tube	28
WALK Tube	23
DON'T WALK Tube	52
Transformers	78
67 Watt Lamps	16848
Fluorescents	58

SHOP OPERATIONS:

Controllers Serviced	391
Dial Units Serviced	737
Relays Serviced	612
Flashers Serviced	256
Signal Heads Serviced	428
Coordination Units Serviced	29
Cabinets Serviced	148
PT-1 Timers Serviced	5
Steel Poles, 10 ft. rebuilt	26

MECHANICAL DIVISION

MANUFACTURE, MAINTENANCE AND REPAIR

FOR FISCAL YEAR 1979 - 1980

Under the general administrative direction of the General Manager, the Machine Shop and Parking Meter Superintendent directs and supervises all maintenance and repair to all mechanical equipment under the jurisdiction of the Department of Electricity. New parts are manufactured as necessary.

The equipment includes the following:

2028-Fire Alarm Boxes

468-Police Patrol Boxes

75-Office Set Phones

924-Traffic Signal Intersections

All mechanical equipment at the Central Fire Alarm Station, Central Radio Station, Hall of Justice Communications Room, and the Plant at 901 Rankin St., including five (5) emergency gas and diesel driven generators at the above, Youth Guidance Center and Bernal Heights.

15,677-Parking Meters

46-Emergency Warning Sirens

56-pieces of gas driven equipment, 49 mobile and 7 stationary. The major repairs and servicing of the above equipment were done at the Purchasing Shops.

The maintenance of three (3) Departmental Buildings; The Plant at 901 Rankin St., Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through contractual services.

The personnel assigned to the Mechanical Division is as follows:

1-Machine Shop and Parking Meter Superintendent

1-Maintenance Machinist Supervisor I

8-Maintenance Machinists

1-Parking Meter Repairer Supervisor I

18-Parking Meter Repairers

3-Painters

1-General Laborer Supervisor I

1-Laborer

1-Clerk Typist

1-Custodian

(23)

MECHANICAL DIVISION

Manufactured:

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete Fire Alarm Boxes in the new Underground Districts. New and replacement parts for Fire Alarm Boxes, Police Patrol Boxes, Registers, Instruments, and Parking Meters were manufactured in the Machine Shop as needed.

Revenues from Parking Meters for the fiscal year 1979/80 was \$3,048,372.00. The total installation of Parking Meters, as of June 30, 1980, was 15,677. Outlying areas still have penny, nickel, and dime rates. A conversion program presently in effect will eliminate the use of pennies by April of 1981.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

Maintenance and Repair

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the public.

Painting

Fire Alarm Boxes, Police Patrol Boxes, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the shop and field. Due to a shortage of personnel, we are on a four (4) to five (5) year painting cycle, rather than a two (2) year cycle recommended for some of the above equipment.

Other Duties

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all Mechanical equipment and Parking Meter field and shop services were kept.

MECHANICAL DIVISION

SUMMARY OF ACTIVITIES

Fiscal Year 1979 - 1980

	<u>Total Numbers</u>
Manufactured Fire Alarm Boxes, parts and related equipment.	5989
Repaired Fire Alarm Boxes, parts and related equipment.	1960
Manufactured Police Call Boxes and related equipment.	199
Repaired Police Telephones and related Communications equipment.	42
Manufactured Traffic Signal Parts and Special Tools.	888
Repaired Traffic Signals, parts and related equipment.	331
Manufactured and repaired miscellaneous radio equipment items, also communications at the Hall of Justice.	688
Miscellaneous items manufactured and repaired for Plant and vehicular equipment.	666
Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	9
Manufactured wooden wedges for installation of Parking Meter Posts.	5500
Repaired Parking Meter Cases, mechanisms, keys, Collector's carts and misc. parts.	752
All Registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk St. (plus related equipment)	1485
Emergency Generators serviced and tested at Central Radio Station, Youth Guidance Center, and McLaren Park.	162

MECHANICAL DIVISION

PAINTING

FIELD AND SHOP

The following items have been hand prepared or sandblasted, primed and finish coated:

FIRE ALARM SYSTEM

Fire Alarm Boxes-Field and Shop.	672
Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc.-Field and Shop.	383

POLICE COMMUNICATION

Police Call Boxes-Field and Shop	47
Miscellaneous items-Shop	0

TRAFFIC SIGNALS

Vehicular Signals-Field and Shop	1200
Signal Controllers-Field and Shop	156
Walk-Wait Pedestrian Signals-Field and Shop	289
Signal Posts, Poles, etc.-Field and Shop	591
Traffic Signal Visors & Lovers-Field and Shop	0

RADIO DIVISION

Miscellaneous Radio Equipment-Shop	0
------------------------------------	---

PARKING METERS

Parking Meter Cases-Shop	183
Cabinets, Siren Parts, Ladders (oiled-shellacked), Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, touch up, etc.	42

Miscellaneous painting at the Plant at 901 Rankin St. at the Central Fire Alarm Station at 1003 Turk St and at the Central Radio Station on Twin Peaks.

MECHANICAL DIVISION

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

NATURE OF TROUBLE

#7444 PARKING METER REPAIRER

Jammed Intentionally.	198273
Cases Cleaned	2467
Damaged Meters Removed.	216
Exchange Heads.	2970
Exchange Mechanisms	5080
Exchange Mechanisms for Cleaning.	11
Exchange Timers	691
Hands Removed	15859
Lock Open Coin Doors.	97
Tighten Heads	462
Tighten Mechanisms.	28
Mechanical Adjustment Mechanisms.	11300
Mechanical Adjustment Cases	4449
Meters Installed.	241
Meters Replaced	781
Meters Removed from Service	239
Temporarily out of Service.	68
O.K. Requested Inspections.	5423
Seal Glass.	-0-
Replace Coin Glass.	2213
Replace Coin Lock	21
Replace Parts to Cases.	6326
Replace Parts to Mechanisms	747
Replace Signal Glass.	793
Stuck Coins	12236
Service Coin Door	10
Service Coin Lock	2953
Stuck Indicators.	2135
Stuck Signals	2035
Stuck Timers.	1910
Unwound Main Springs.	7201
Winding Hole Plugged.	164
Checked for Traffic Fines Bureau.	170
Disassemble Cases in Shop	504

#7332 MAINTENANCE MACHINIST

Timers Rebuilt.	-0-
Mechanisms Cleaned and Overhauled	6515
Shop Repairs on Cases	1631
Exchange Mechanisms	805
Prepare Cases (New Meters).	3739
Repair Case in Field.	75
Disassemble Mechanisms.	1961

#7346 PAINTER

Meters Painted.	183
-------------------------	-----

TOTAL

WORK ON POSTS:

#7444 P.M. REPAIRER

Straightened.	222
-----------------------	-----

#7332 MAINT. MACH.

Weld Posts in Field	4
-------------------------------	---

#7514 LABORER

Straightened.	1978
Removed	105
Relocated	13
Installed	376
Replaced.	510
Reset	923
TOTAL	4131

COMPLAINTS

RECEIVED BY

TELEPHONE:

Tax Office.	-0-
S.F.P.D.	2668

TOTAL	2668
-----------------	------

288073

14726

183

4131

307113

MECHANICAL DIVISION

INVENTORY OF PARKING METERS

AS OF JUNE 30, 1980

<u>District</u>	<u>Number</u>	<u>Number in Off-Street Parking Lots</u>
A	<u>985</u>	<u>69</u>
B	<u>897</u>	<u>119</u>
C	<u>826</u>	<u>-0-</u>
D	<u>871</u>	<u>40</u>
E	<u>738</u>	<u>-0-</u>
F	<u>938</u>	<u>82</u>
G	<u>839</u>	<u>-0-</u>
H	<u>738</u>	<u>-0-</u>
I	<u>600</u>	<u>-0-</u>
J	<u>807</u>	<u>-0-</u>
K	<u>1002</u>	<u>-0-</u>
L	<u>587</u>	<u>31</u>
M	<u>728</u>	<u>-0-</u>
N	<u>914</u>	<u>-0-</u>
O	<u>604</u>	<u>73</u>
P	<u>728</u>	<u>20</u>
R	<u>655</u>	<u>299</u>
S	<u>767</u>	<u>36</u>
T	<u>643</u>	<u>41</u>
Total	<u>14,867</u>	<u>810</u>

Grand
Total 15,677

SP
E51
#1
1980-81

DEPARTMENT OF ELECTRICITY

RADIO COMMUNICATIONS
(VOICE, DIGITAL, TELEMETRY)

DOCUMENTS DEPT

JUN 15 1981

DEPT. OF ELECTRICITY

ANNUAL REPORT ENDING JUNE 30, 1981

TRAFFIC
SIGNALS

DEPT OF ELECTRICITY

FIRE ALARM

PULL HOOK
DOWN ONCE

PARKING METERS

POLICE
TELEPHONE

DEPARTMENT
OF
ELECTRICITY

WARNING

MCA 408

ANNUAL REPORT
DEPARTMENT OF ELECTRICITY
CITY AND COUNTY OF SAN FRANCISCO

FISCAL YEAR 1980 - 1981

HON. DIANNE FEINSTEIN

MAYOR

ROGER BOAS

CHIEF ADMINISTRATIVE OFFICER

JULES T. BECKLEY

GENERAL MANAGER

September 9, 1981



Mr. Roger Boas
Chief Administrative Officer
Room 289 City Hall
San Francisco, California

Dear Mr. Boas:

In accordance with the provisions of Section 3.501 of the Charter of the City and County of San Francisco, I am pleased to submit the annual report of the Department of Electricity for fiscal year 1980-81.

The Department continues to fulfill its responsibilities and performs its functions through organization into four divisions: Administration, Electrical, Mechanical and Radio.

During the latter part of the fiscal year this Department implemented the concepts of Program Budgeting and Management by Objectives, and future reports will reflect this restructuring.

A significant accomplishment during the past year was the replacement and conversion of approximately 16,000 parking meters (doubling of rates) within the scheduled time frame and allocated funds.

The cost of operating the Department of Electricity during fiscal year 1980-81 was \$3,354,312, or 8.68% greater than for the prior fiscal year.

I sincerely appreciate the help and understanding extended by you and your staff during this past year.

Respectfully submitted,

Jules T. Beckley
JULES T. BECKLEY
General Manager
Department of Electricity

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PARKING METERS AND MECHANICAL SERVICES	19 - 27

ADMINISTRATION

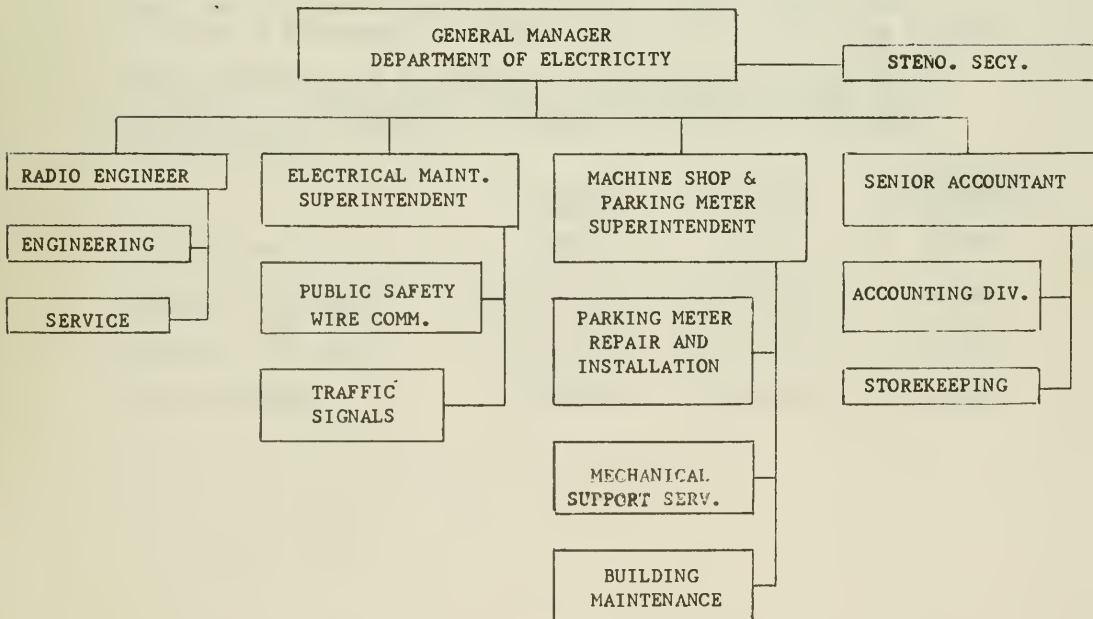
The Department of Electricity is a General Service Department whose main function is to provide service in the areas of:

- Parking Meters
- Traffic Signals
- Radio Communications
- Wire Lines/Teletype Communications
- Fire Alarm Box Systems/Dispatch and Command
and Control Functions
- Overhead and Underground Wire and Cable Systems
- Air Raid Siren Systems
- Operation of Fire Department Switchboard
- Other Ancillary Support Functions

Effective management and coordination is provided by the General Manager and a Division Head in charge of each program.

Major Programs are:

- (a) Administration/Management and Departmental Support Services
- (b) Parking Meter Maintenance and Repair
- (c) Public Safety Wire Communications
- (d) Radio Communications
- (e) Traffic Signal Maintenance/Repair



ACCOUNTING (ADMINISTRATION)

The Senior Accountant, under the direction of the General Manager, is responsible for the Accounting (Administration) Division. The Division is composed of three Department of Electricity personnel and one Storekeeper from the Purchasing Department. In addition to Accounting functions, various administrative tasks are assigned which require a portion of the services of *two additional personnel. The personnel are as follows:

- 1 - 1652 Senior Accountant
- 1 - 1650 Accountant
- 1 - 1630 Account Clerk
- 1 - 1934 Storekeeper
- *1 - 1446 Senior Clerk Stenographer
- *1 - 1424 Clerk Typist

For functional use, the Division maintains an orderly system of recording costs and revenues which are compiled and reported to management in timely periodic reports.

For cost control of labor, material, services, and equipment, the Division maintains approximately seventy cost accounts, as well as accounting for individual budgetary line items. Also, the Division, during the Fiscal Year 1980-81, compiled costs for 115 individual work orders, special jobs, and projects, a decrease of 12% as compared to Fiscal Year 1979-80.

During 1980-81, 155 billings, in the amount of \$149,525.00 were made to cover Special Jobs, Installation Funds, and damages to City property. Comparison with previous years is as follows:

	<u>1980-81</u>	<u>1979-80</u>	<u>% Increase (Decrease)</u>
No. Billings	155	162	(4.32%)
Amount of Billings	\$149,525.00	\$124,877.00	19.74%
Damages - Billings	74,297.00	92,031.00	(19.27%)
Other Billings	75,228.00	32,846.00	(129.03%)

ACCOUNTING (ADMINISTRATION)
ESTIMATED AND COMPARATIVE REVENUE

	Estimated Revenue <u>1980-81</u>	Collections-Cash Received <u>1980-81</u>	<u>1979-80</u>	% Increase (Decrease)
Damage Claims - Traffic Signals (Note A)	\$23,000.00	\$28,607.00	\$26,476.00	8.05%
Damage Claims - Parking Meters (Note B)	6,000.00	2,329.00	6,225.00	(62.59%)
Damage Claims - Police & Fire Alarm Facilities (Note C)	3,000.00	2,907.00	2,500.00	16.28%
Housemoving Elec- trical Inspection (Note C)	35.00	21.00	99.00	(78.79%)
 TOTAL	 \$32,035.00	 \$33,864.00	 \$35,300.00	 (4.07%)

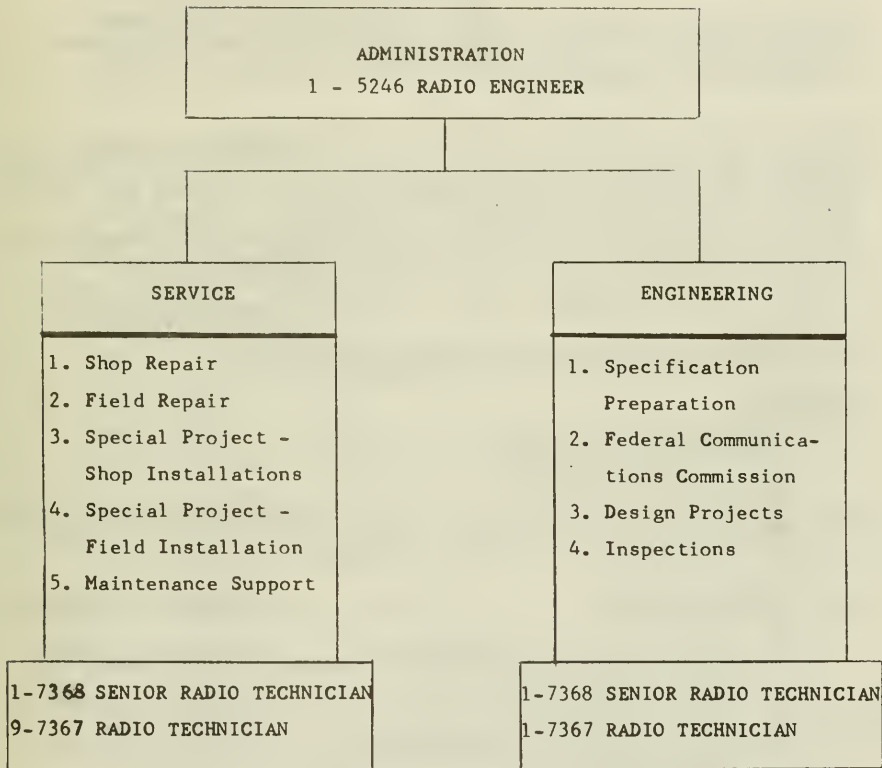
COMMENT

Collections include all Department of Electricity Revenue collected by this Department or another.

NOTES

- (A) Recovery of damages is deposited to General Fund
- (B) Recovery of damages is deposited to General Fund
- (C) Collections offset actual cost for each inspection of overhead line wires.

RADIO-ELECTRONIC COMMUNICATIONS PROGRAM



RADIO ELECTRONICS COMMUNICATIONS PROGRAM

Radio Engineering and Servicing are the two major functions of the Radio Electronics Communications Program.

General responsibilities are to consult, plan, design, manage and service the radio electronics communications systems for the various Departments of the City and County of San Francisco.

This Division provides expertise and services through estimates, specifications, equipment procurement, licensing, installation, maintenance, repair and service of any City radio electronics communications system. This work is done in conformance with Federal Communications Commission Rules and Regulations and Industry Standards. Special electronics projects, funded by inter-departmental work orders, are also part of this divisions responsibility.

Radio Electronics Communications Activities

SERVICE

1 - Shop repair activity.

Repairs malfunctioning portable and mobile radio electronic units and vehicular Radio Electronic Systems brought into shop from operational systems:

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
(A) Vehicle Radio Electronic Systems Serviced	1750	1956
(B) Mobile Radio Electronic Units Repaired	594	660
(C) Portable Radio Electronic Units Repaired	1145	1272

2 - Field repair activity.

Involves maintaining fixed field radio and electronics equipment at on site locations.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
Number Of Fixed Radio Electronic Units	338	372
Services Performed	1177	1308

* calculated data -- Dept. was not on MBO format for entire FY 80/81

RADIO ELECTRONICS COMMUNICATIONS PROGRAM

3 - Special Project

Shop installation activity.

Performs installation of new and rehabilitated mobile radio electronic equipment. Checks out portable and mobile radio electronic equipment before operational use.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
(A) Mobile Radio Electronic Units Installed	260	288
(B) Mobile Radio Electronic Units Removed	356	396

4 - Special project

Field installation activity.

Pre testing and check out of new radio electronic equipment is performed then actual installation is made at on-site field locations.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
(A) Equipment Check Out	20	118
(B) Installation & Testing	75	588

5 - Maintenance support activity.

Stock records and levels are kept to assure availability of necessary items to support the maintenance and repair of all fixed and mobile radio electronic equipment. Calibration records are kept for all fixed and mobile equipment.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
Record Equipment Data	382	424
Support Items Required	2646	2940
Calibrations	1718	1908

* calculated data -- Dept. was not on MBO format for entire FY 80/81

RADIO ELECTRONICS COMMUNICATIONS PROGRAM

ENGINEERING

(1) Engineering specification preparation activity.

Developes written specifications that identifies parameters of equipment needed to meet communications requirements.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
(A) Number Of Specifications	50	54

(2) FCC licensing activity.

Applies for authority to install and operate fixed and mobile radio equipment. Obtains coordination and approval of area communications agencies. Reviews and modifies licenses as required.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
(A) Number Of Applications	60	41
(B) Coordinations	11	8
(C) Renewals	31	28

(3) Engineering projects activity.

Consults, designs, implements various new projects for the changing needs of City Departments.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
(A) Number Of Projects	9	17

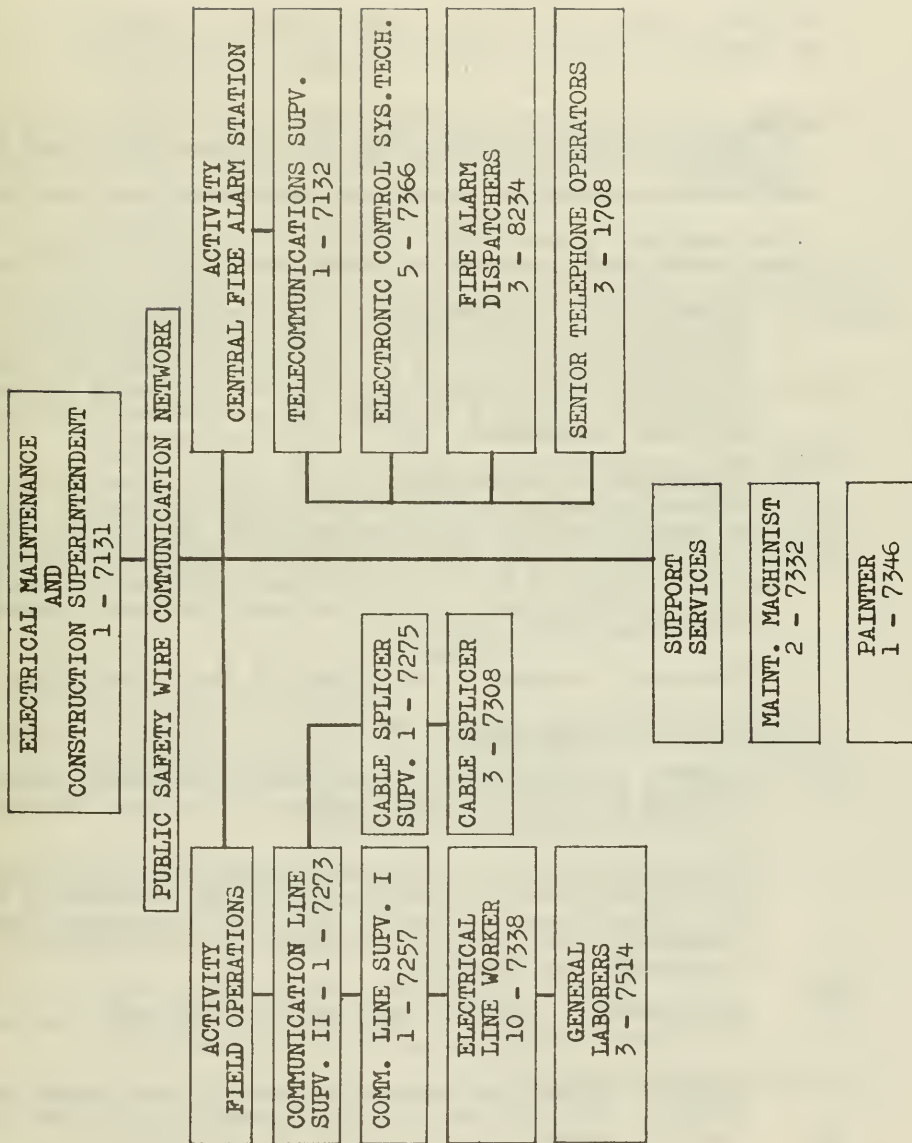
(4) Inspection activity.

Review and inspection of areas to be serviced is performed. Field surveys and preliminary studies are made prior to development of specifications. Inspection of installed systems is made to assure compliance with specifications.

<u>Program Output</u>	<u>79/80*</u>	<u>80/81*</u>
(A) Inspections Performed	45	60

* calculated data -- Dept. was not on MBO format for entire FY 80/81

CHART A



PROGRAM

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

GOAL: To effectively maintain public safety wire line circuits in order to provide timely fire protection, police and emergency responses in compliance with requirements of National fire Protection Association regarding maintenance and testing.

This program is under the direction of the Electrical Maintenance and Construction Superintendent. Activities are:

Operation and maintenance of the Central Fire Alarm Station on a 24-hour basis. This activity includes maintenance and service of the computer-assisted fire alarm dispatch system with teletype and voice announce consoles in 44 Fire Stations and associated agencies of the Fire Department.

Operation and maintenance of the City's Fire and Police Non-Radio Communication Systems. This activity consists of maintenance of the Fire Box Alarm System, Police Call-Box System, Police Teletype System, Private Telephone System, Mayor's Emergency Telephone System, Air Raid Siren System along with the related Overhead Line and Underground Cable System.

Personnel assigned to this program are: (See Chart A)

Central Fire Alarm Station activities include the following:

24-hour operation of the telephone switchboard which provide service to all units and bureaus of the Fire Department and the Department of Electricity.

Monitors fire box alarm panels connected to all street fire alarm boxes. Alarms received are transmitted thru the computer which provides the Fire Department Bureau of Communications assignment officer with a recommended assignment for dispatch.

Monitors hot lines and registers from private Central Office fire alarm companies.

Tests 43 circuits connected to the air raid siren warning system. Tests sirens on a weekly basis to insure satisfactory operation.

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

Field operation activities consist of the following:

Repair and maintenance of the City's Fire Alarm Box System along with the System's related overhead and underground circuits.

Repair and maintenance of the Police Ring-in Telephone System along with the System's related wiring.

Routine replacing of overhead lines and underground cables on an as-needed basis.

Testing of the City's Fire Alarm Box System, auxiliary fire alarm systems connected to 130 public schools and supervision of auxiliary connections from various public buildings.

Expansion of the Mayor's Emergency Telephone System.

This operation also has personnel in the field on a 24-hour basis to respond to complaints on fire alarm boxes, fire station equipment, police telephones, traffic signals or any other complaint involving City property. This trouble-shooting detail is available for immediate response to most emergency situations throughout the City.

Reliability of Fire Alarm System

Performance Measure -

Fire Alarm Boxes - In Service Daily	2028
*Fire Alarm Boxes - Out of Service	2 per day (Avg.)
Objective of 99% reliability was exceeded.	

Testing of Fire Alarm Boxes

Performance Measure -

Fire Alarm Boxes to be tested monthly	1014
*Fire Alarm Boxes tested monthly (Actual)	688
Objective of 70% was met.	

Reliability of Ring-in Telephone System & Mayor's Emergency Telephone System

Telephones in service daily	535
*Telephones out of service - daily basis	NA

*These figures have been projected to reflect MBO performance measures for Fiscal Year 1980-81.

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

Central Fire Alarm Station - continued

Conducts scheduled tests of fire alarm box circuits, dispatch circuits and emergency power equipment.

Coordinate test and repair activities with field personnel.

Management Data System:

This data system is interfaced with the computer main frame at the Central Fire Alarm Station using Department cable pairs to Fire Department Headquarters. CRT data terminals and line printers are used by various bureaus of the Fire Department Administrative Headquarters to send, store or retrieve data from the computer main frame.

PROGRAM OBJECTIVES

% of complaints responded to in 1 hour.

* Objective achieved (93%) was slightly below goal of 95%.

Respond to complaints and repair 95% of Fire Station equipment within 1 hour.

* Objective achieved 74% was below goal. This was primarily due to several low priority complaints.

* These figures have been projected to reflect MBO performance measures for F.Y. 1980-81.

In addition to the Program Objectives, other activities carried out by personnel at the Central Fire Alarm Station are:

24-hour radio contact with field personnel for immediate response to emergencies.

Summary of complaints received by personnel during F.Y. 1980-81:

Fire Alarm Circuits	376
Fire Alarm Boxes	98
Police Call Box Locals	36
Traffic Signals	1946
Fire Station Line Trouble	96
* SA/TPE Fire Station Equipment	241
** SA/TPE - CFAS	69

* Teletype and Voice Announce Consoles in Fire Stations.

** Command & Control Equipment - CFAS.

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

In addition to the Program Objectives, other activities carried out by personnel in the Public Safety Program, field operations were:

- Installation of 11 new Fire Alarm Boxes.
- Relocated 9 Fire Alarm Boxes.
- Removed 9 Fire Alarm Boxes.
- Installed new 3-fold movements at 4 locations.
- Repaired 109 Fire Box movements in shop.
- Repaired 36 Fire Alarm boxes in field.
- Made repairs to damaged Fire Alarm boxes at 43 locations.
- Repaired damages to overhead or underground facilities at 8 locations.
- Repaired or replaced Fire Alarm box standards at 74 locations.
- Responded to 39 complaints on auxiliary Fire Alarm Systems in public schools.

Assisted following agencies with the testing of their auxiliary Fire Alarm Systems:

- Municipal Railway Kirkland Yard.
- San Francisco Port Authority.
- Department of Public Works - 2323 Army Street
- State of California - 1st & Mission Streets
- Hunter's Point Shipyard
- University of California Hospital Complex
- Hall of Justice - 850 Bryant Street

Hall of Justice Communications

Maintained Police Telephone Switchboard with 89 telephones in the Hall of Justice.

Maintained the Chief of Police private telephone system.

Maintained and repaired the visitor's telephone system at 6th and 7th floor jails.

Central Radio Station

Maintained and conducted tests on two emergency generators.

Checked radio tower aircraft warning lights nightly and reported status as required by F.C.C. regulations.

Conducted nightly security checks.

Replaced aircraft warning lights as required.

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

Air Raid Warning System

Tested, maintained and repaired the City's Air Raid Siren System.

Overhead Lines and Underground Cables

Transferred facilities to new P.G. & E. poles at 77 locations.

Replaced crossarms at 105 locations.

Replaced 4,550 feet of overhead line wire.

Repaired, spliced and cutover underground cables at 128 locations.

Performed routine maintenance to overhead lines at 344 locations.

Cleared trouble on Fire Alarm circuits at 246 locations.

Cleared trouble on Command and Control circuits at 66 locations.

Replaced defective cables or installed in new areas, 25,915 feet of various size cables.

Installed 510' of various size conduits in City streets.

The following projects were completed under Work Orders issued:

WO 01150 - India Basin Project

WO 10625 - Rain Gauge Pole Straightening

WO 02730 - Pier 80 - Undergrounding

Work was also performed on the following Work Orders:

WO 10738 - Cow Hollow - Undergrounding

WO 11167 - #55 Sacramento Line

WO 10644 - Rain Gauge Pole Setting

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

The following Special Jobs were worked on or completed:

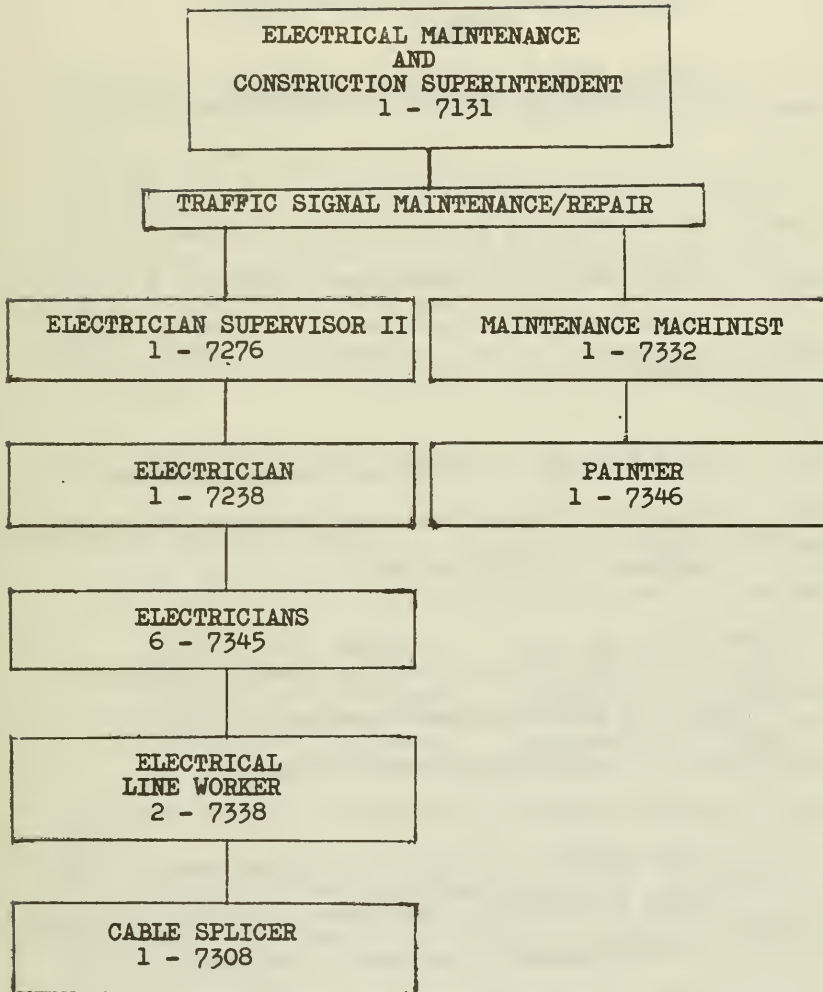
- SJ 240 - University of California Hospital
Student Housing - Auxiliary Fire Alarm
- SJ 294 - Front & Pine - Fire Alarm Box Relocation
- SJ 292 - Dorado Terrace - New Fire Alarm Boxes
- SJ 293 - Performing Arts Center - Auxiliary Fire Alarm
- SJ 290 - Public Health Hospital - Auxiliary Fire Alarm
- SJ 302 - Pier 37 - Fire Alarm Box Relocation
- SJ 271 - Quint & Jerrold - Overhead Relocation
- SJ 312 - 550 Utah St. - Overhead Relocation
- SJ 308 - CATV - Overhead Facility Relocation

Checked plans submitted by other City Departments, Utility Companies, Developers, Street Improvement Contracts and various other agencies.

Marked underground conduits and ducts as required.

Estimated costs and submitted plans to Auxiliary Fire Alarm Companies for connection to the Municipal System.

CHART B



PROGRAM

TRAFFIC SIGNAL MAINTENANCE/REPAIR

GOAL: To effectively maintain traffic signals along with associated underground cables on a 24-hour basis in order to provide for efficient traffic flow.

This program is under the direction of the Electrical Maintenance and Construction Superintendent. Activities are:

To provide field service, installation, shop repair and overhaul of 924 intersections of traffic signals.

This program is funded by a Department of Public Works Work Order. Materials, supplies and wages have increased considerably during the 1980-81 fiscal year but the Work Order funding has not been increased. Consequently, all our objectives have not been achieved.

(See Chart B)

TRAFFIC SIGNAL MAINTENANCE/REPAIR

Intersections relamped - 816
Objective was exceeded. 88% of intersections relamped.

Complaints responded to in 1 hour.
Statistics for this objective are not available for
FY 1980-81.

Dispatchers or controllers changed or overhauled.
Objective (70%) was not achieved as only 21% of inter-
section controllers were overhauled.

Reduce number of complaints due to dispatcher failure.
Statistics for this objective are not available for
FY 1980-81.

*These figures have been projected to reflect MBO performance
for 1980-81.

In addition to the Program Objectives, other activities
carried out by personnel in the Traffic Signal Program were:

New intersections installed and placed in service:

Capitol and Sagamore	Portola and Glenview
18th Ave. and Geary	Polk and Washington
26th St. and Valencia	Brotherhood and Thomas More
Mendell and Cargo Way	Mendell and Evans
Sacramento and Davis	Sacramento and Front
Otis St.-Mid-block North of Mission St.	

Responded to 1946 complaints of various nature on a 24-hour
basis.

Made repairs to damaged equipment at 152 locations.

Made repairs to damaged conduits and replaced wiring at
41 locations.

Changed signal heads at 144 locations.

Replaced controller cabinets at 30 locations.

Made relocations, installations and modifications under
Special Jobs at:

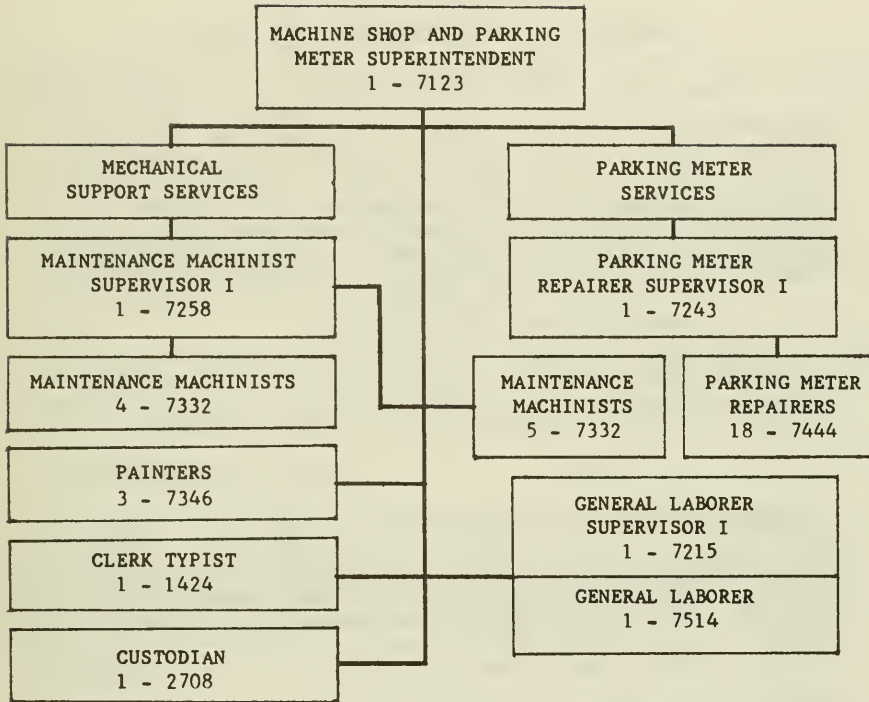
California and Front: Relocated controller cabinet
and signals on SW corner for construction of new
building.

TRAFFIC SIGNAL MAINTENANCE/REPAIR

Market and Front: Relocated pedestrian signal on NW corner for construction of new building.

McAllister and Hyde: Installed new conduit and master cable on Hyde Street between McAllister and Golden Gate for construction of new building.

MECHANICAL DIVISION
FISCAL YEAR 1980-81



ALLOCATION OF PERSONNEL IN SUPPORT OF VARIOUS PROGRAMS

	<u>PUBLIC SAFETY</u>	<u>PARKING METERS</u>	<u>TRAFFIC</u>	<u>ADMIN.</u>
M.S. AND P.M. SUPT.				1
MAINT. MACH. SUPV. I				1
P.M. REPAIRER SUPV. I		1		
GEN. LABORER SUPV. I		1		
MAINT. MACHINISTS	2	5	1	1
P.M. REPAIRERS		18		
PAINTERS	1		2	
GEN. LABORERS		1		
CUSTODIAN				1
CLERK TYPIST				1

MECHANICAL DIVISION

MANUFACTURE, MAINTENANCE AND REPAIR

FOR FISCAL 1980/81

The Mechanical Division under the direction of the Machine Shop and Parking Meter Superintendent has full responsibility of the Parking Meter program and is a support service for the Departments other programs and functions, which includes the maintenance, repair and manufacturing to all mechanical equipment under the jurisdiction of the Department of Electricity.

The equipment includes the following:

2028-Fire Alarm Boxes

468-Police Call Boxes

75-Desk Set Phones

924-Traffic Signal Intersections

All mechanical equipment at the Central Fire Alarm Station, Central Radio Station, Hall of Justice Communications Room, and the Plant at 901 Rankin St., including five (5) emergency gas and diesel driven generators at the above Youth Guidance Center and Bernal Heights.

15,894-Parking Meters

46-Emergency Warning Sirens

56-pieces of gas driven equipment, 49 mobile and 7 stationary. The major repairs and servicing of the above equipment were done at the Purchasing Shops.

The maintenance of three (3) Departmental Buildings; The Plant at 901 Rankin St., Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through contractual services.

MECHANICAL DIVISION

FISCAL 1980/81

The following mechanical services were performed in support for the public safety, traffic signal, radio and administration programs:

Manufactured

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete Fire Alarm Boxes in the new Underground Districts. New and replacement parts for Fire Alarm Boxes, Police Call Boxes and Instruments were manufactured in the Machine Shop as needed.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

Maintenance and Repair

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the public.

Painting

Fire Alarm Boxes, Police Call Boxes, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the shop and field. Due to a shortage of personnel, we are on a four (4) to five (5) year painting cycle, rather than a two (2) year cycle recommended for some of the above equipment.

Other Duties

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all Mechanical equipment were kept.

MECHANICAL DIVISION
SUMMARY OF ACTIVITIES

FISCAL 1980/81

	<u>Total Numbers</u>
Manufactured Fire Alarm Boxes, parts and related equipment.	2,293
Repaired Fire Alarm Boxes, parts and related equipment.	1,193
Manufactured Police Call Boxes and related equipment.	437
Repaired Police Telephones and related Communications equipment.	49
Manufactured Traffic Signal Parts and Special Tools.	270
Repaired Traffic Signals, parts and related equipment.	245
Manufactured and repaired miscellaneous radio equipment items, also communications at the Hall of Justice.	843
Miscellaneous items manufactured and repaired for Plant and vehicular equipment.	1026
Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	34
All Registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk St. (plus related equipment)	1484
Emergency Generators serviced and tested at Central Radio Station, Youth Guidance Center, and McLaren Park. (plus related equipment)	190

MECHANICAL DIVISION

PAINTING

FIELD AND SHOP

FISCAL 1980/81

The following items have been hand prepared or sandblasted, primed and finish coated:

FIRE ALARM SYSTEM

Fire Alarm Boxes-Field and Shop.	705
Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc.-Field and Shop.	599

POLICE COMMUNICATION

Police Call Boxes-Field and Shop	120
Miscellaneous items-Shop	8

TRAFFIC SIGNALS

Vehicular Signals-Field and Shop	1160
Signal Controllers-Field and Shop	194
Walk-Wait Pedestrian Signals-Field and Shop	224
Signal Posts, Poles, etc.-Field and Shop	555
Traffic Signal Visors & Lovers-Field and Shop	51

MISCELLANEOUS

Cabinets, Siren Parts, Ladders (oiled-shellacked), Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, touch up, etc.	70
Painting at the Plant at 901 Rankin St. at the Central Fire Alarm Station at 1003 Turk St. and at the Central Radio Station on Twin Peaks.	16

MECHANICAL DIVISION

PARKING METER PROGRAM

FISCAL 1980/81

Goal: To effectively maintain and repair Parking Meters in order to maximize revenues.

Revenues from Parking Meters for the fiscal year 1980/81 was \$5,158,160. which was an increase of \$2,109,788. over the prior fiscal year.

The revenue increases were attributed to some significant changes made during the year.

All of the Parking Meter rates were doubled and the penny operation was eliminated. This was accomplished by converting 10,000 existing meters and replacing nearly 6000 25 year old free falling coin, aluminum housing type meters. They were replaced with malleable iron vaulted, sealed coin collection can type meters.

All meters used in San Francisco streets and parking lots are now of the vaulted type. All of the free fall meters have been eliminated. This project was completed in approximately 8-months time.

It was supported by work order funds from the Parking Authority.

Work Order	02750	\$78,107
Work Order	10080	<u>35,377</u>
		\$113,484

Labor costs allocated to both installations and conversions were 66% of the funds made available.

The total number of installed Parking Meters is now 15,894, an increase of 217 over fiscal 79/80.

PROGRAM OBJECTIVES

FISCAL 1980/81

To insure effective field service and inspection to 80% of the City's 15,800 Parking Meters daily using less than one labor hour for every 103 meters serviced.

To insure accuracy, dependability and increase years of service by performing a complete overhaul in the shop to 50% of the Parking Meter mechanisms using less than .89 labor hours per mechanism.

To complete 70% of the Parking Meter post damages using less than .85 labor hours per each occurrence.

PROGRAM OUTPUT

	1979/80	1980/81
% of meters serviced daily	85%	80%
% of meters overhauled	50%	50%
% of meter posts installed daily	70%	70%

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

FOR FISCAL 80/81

NATURE OF TROUBLE		
<u>#7444 PARKING METER REPAIRER</u>		
Jammed Intentionally.	183087	
Cases Cleaned	2826	
Damaged Meters Removed.	135	
Exchange Heads.	6604	
Exchange Mechanisms	6711	
Exchange Mechanisms for Cleaning.	14	
Exchange Timers	992	
Hoods Removed	18555	
Lock Open Coin Doors.	32	
Tighten Heads	667	
Tighten Mechanisms.	18	
Mechanical Adjustment Mechanisms.	17280	
Mechanical Adjustment Cases	3534	
Meters Installed.	324	
Meters Replaced	740	
Meters Removed from Service	268	
Temporarily out of Service.	81	
O.K. Requested Inspections.	7788	
Seal Glass.	30	
Replace Coin Glass.	2157	
Replace Coin Lock	9	
Replace Parts to Cases.	3897	
Replace Parts to Mechanisms	1524	
Replace Signal Glass.	253	
Stuck Coins	13928	
Service Coin Door	79	
Service Coin Lock	562	
Stuck Indicators.	1514	
Stuck Signals	2402	
Stuck Timers.	4469	
Unwound Main Springs.	7391	
Winding Hole Plugged.	77	
Checked for Traffic Fines Bureau.	778	
Disassemble Cases in Shop	6813	295539
<u>#7332 MAINTENANCE MACHINIST</u>		
Timers Rebuilt.	-0-	
Mechanisms Cleaned and Overhauled	6102	
Shop Repairs on Cases	1869	
Exchange Mechanisms	2513	
Prepare Cases (New Meters).	11452	
Repair Case in Field.	466	
Disassemble Mechanisms.	6580	
Repair Collector Carts, key and Misc. parts	1312	
Mfgr. wooden wedges for Installation of posts	8595	38889
<u>#7346 Painter</u>		
Meters Painted.	848	848
		3897
TOTAL		339173
		<u>WORK ON POSTS:</u>
		<u>#7444 P.M. REPAIRER</u>
		Straightened 702
		<u>#7332 MAINT. MACH.</u>
		Weld Posts in Field 18
		<u>#7514 LABORER</u>
		Straightened 1379
		Removed 185
		Relocated. 17
		Installed. 324
		Replaced 485
		Reset 805
		TOTAL 3897
		<u>COMPLAINTS</u>
		<u>RECEIVED BY</u>
		<u>TELEPHONE:</u>
		Tax Office -0-
		S.F.P.D. 2742
		TOTAL 2742

INVENTORY OF PARKING METERS

AS OF JUNE 1981

<u>District</u>	<u>Number</u>	<u>Number in Off-Street Parking Lots</u>
A	<u>1045</u>	<u>69</u>
B	<u>896</u>	<u>119</u>
C	<u>823</u>	<u>-0-</u>
D	<u>890</u>	<u>40</u>
E	<u>727</u>	<u>-0-</u>
F	<u>926</u>	<u>81</u>
G	<u>861</u>	<u>-0-</u>
H	<u>784</u>	<u>-0-</u>
I	<u>572</u>	<u>-0-</u>
J	<u>800</u>	<u>-0-</u>
K	<u>1032</u>	<u>-0-</u>
L	<u>609</u>	<u>31</u>
M	<u>767</u>	<u>-0-</u>
N	<u>915</u>	<u>-0-</u>
O	<u>592</u>	<u>73</u>
P	<u>708</u>	<u>20</u>
R	<u>660</u>	<u>299</u>
S	<u>822</u>	<u>36</u>
T	<u>658</u>	<u>39</u>
Total	<u>15,087</u>	<u>807</u>
		Grand Total <u>15,894</u>

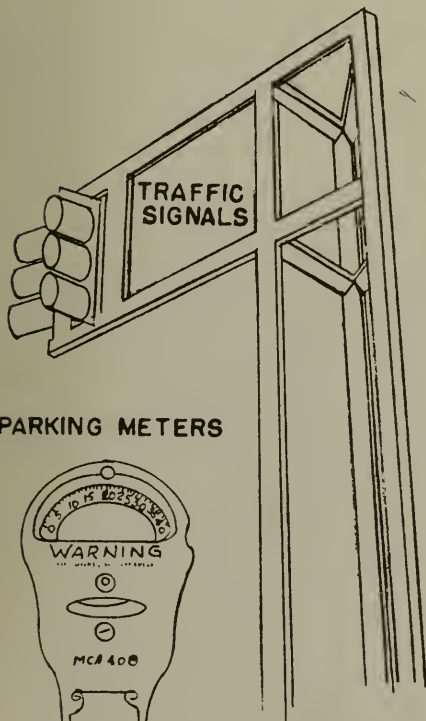
DEPARTMENT OF ELECTRICITY

RADIO COMMUNICATIONS

DOCUMENTS DEPT.

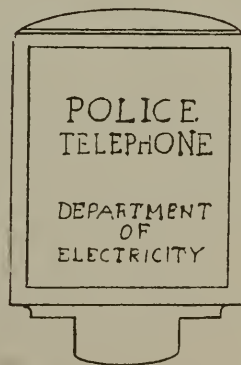
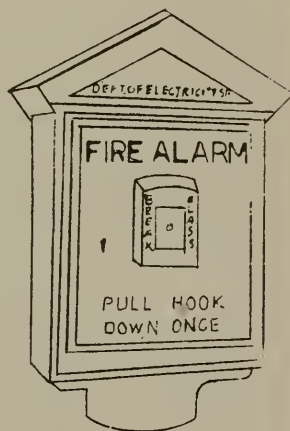
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PARKING METERS

ANNUAL
REPORT
ENDING
JUNE 30,
1982



ANNUAL REPORT
DEPARTMENT OF ELECTRICITY
CITY AND COUNTY OF SAN FRANCISCO

FISCAL YEAR 1981 - 1982

HON. DIANNE FEINSTEIN
MAYOR

ROGER BOAS
CHIEF ADMINISTRATIVE OFFICER

JULES T. BECKLEY
GENERAL MANAGER

September 1, 1982



Mr. Roger Boas
Chief Administrative Officer
Room 289 City Hall
San Francisco, California

Dear Mr. Boas:

In accordance with the provisions of Section 3.501 of the Charter of the City and County of San Francisco, I am pleased to submit the annual report of the Department of Electricity for fiscal year 1981-82.

The Department continues to fulfill its responsibilities and performs its functions through organization into four divisions: Administration, Electrical, Mechanical and Radio.

This was the first full year of operation under Program Budgeting and Management by Objectives, and this report reflects this Department's goals, performance objectives, and measures for the 1981-82 fiscal year.

The cost of operating the Department of Electricity during fiscal year 1981-82 was \$3,830,478, or 11% greater than for the prior fiscal year.

I sincerely appreciate the help and understanding extended by you and your staff during this past year.

Respectfully submitted,

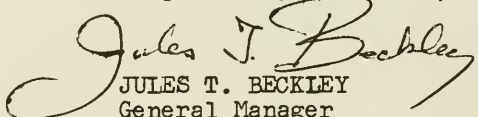

JULES T. BECKLEY
General Manager
Department of Electricity

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ADMINISTRATION

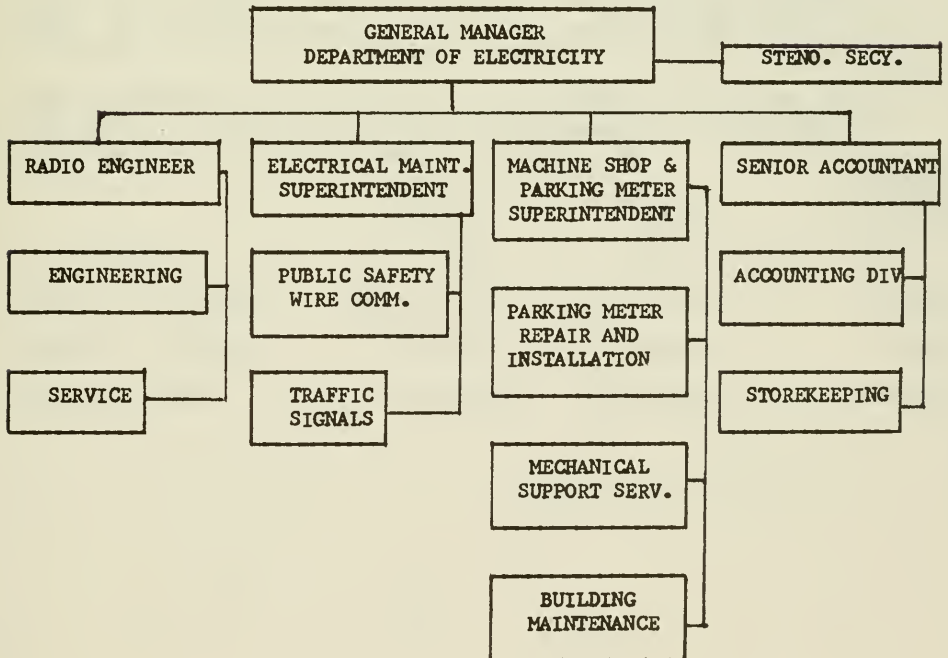
The Department of Electricity is a General Service Department whose main function is to provide service in the areas of:

Parking Meters
Traffic Signals
Radio Communications
Wire Lines/Teletype Communications
Fire Alarm Box Systems/Dispatch and Command and Control Functions
Overhead and Underground Wire and Cable Systems
Air Raid Siren Systems
Operation of Fire Department Switchboard
Other Ancillary Support Functions

Effective management and coordination is provided by the General Manager and a Division Head in charge of each program.

Major Programs are:

- (a) Administration/Management and Departmental Support Services
- (b) Parking Meter Maintenance and Repair
- (c) Public Safety Wire Communications
- (d) Radio Communications
- (e) Traffic Signal Maintenance/Repair



ACCOUNTING (ADMINISTRATION)

The Senior Accountant, under the direction of the General Manager, is responsible for the Accounting (Administration) Division. The Division is composed of three Department of Electricity personnel and one Storekeeper from the Purchasing Department. In addition to Accounting functions, various administrative tasks are assigned which require a portion of the services of *two additional personnel. The personnel are as follows:

- 1 - 1652 Senior Accountant
- 1 - 1650 Accountant
- 1 - 1632 Senior Account Clerk
- 1 - 1934 Storekeeper
- *1 - 1446 Senior Clerk Stenographer
- *1 - 1424 Clerk Typist

For functional use, the Division maintains an orderly system of recording costs and revenues which are compiled and reported to management in timely periodic reports.

For cost control of labor, material, services, and equipment, the Division maintains approximately seventy cost accounts, as well as accounting for individual budgetary line items. Also, the Division, during the Fiscal Year 1981-82, compiled costs for 150 individual work orders, special jobs, and projects, an increase of 30% as compared to Fiscal Year 1980-81.

During 1981-82, 155 billings, in the amount of \$139,245.34 were made to cover Special Jobs, and damages to City property. Comparison with previous years is as follows:

	<u>1981-82</u>	<u>1980-81</u>	<u>% Increase (Decrease)</u>
No. Billings	155	155	-0-
Amount of Billings	\$139,245.34	\$149,525.00	(6.87%)
Damages - Billings	78,080.14	74,297.00	5.09%
Other Billings	61,165.20	75,228.00	(18.69%)

ACCOUNTING (ADMINISTRATION)

ESTIMATED AND COMPARATIVE REVENUE

	Estimated Revenue <u>1981-82</u>	Collections-Cash Received <u>1981-82</u>	<u>1980-81</u>	% Increase (Decrease)
Damage Claims- Traffic Signals (Note A)	\$25,000.00	\$44,534.00	\$25,607.00	73.91%
Damage Claims- Parking Meters (Note A)	3,500.00	5,129.00	2,329.00	120.22%
Damage Claims- Police & Fire Alarm Facilities (Note A)	5,000.00	8,178.00	3,000.00	172.60%
Electrical Inspection & Permit (Note B)	1,700.00	1,995.00	2,907.00	(31.37%)
Housemoving- Electrical Work	<u>35.00</u>	<u>26.00</u>	<u>21.00</u>	23.81%
TOTALS	\$35,235.00	\$59,862.00	\$33,864.00	

COMMENT

Collections include all Department of Electricity Revenue collected by this Department or another.

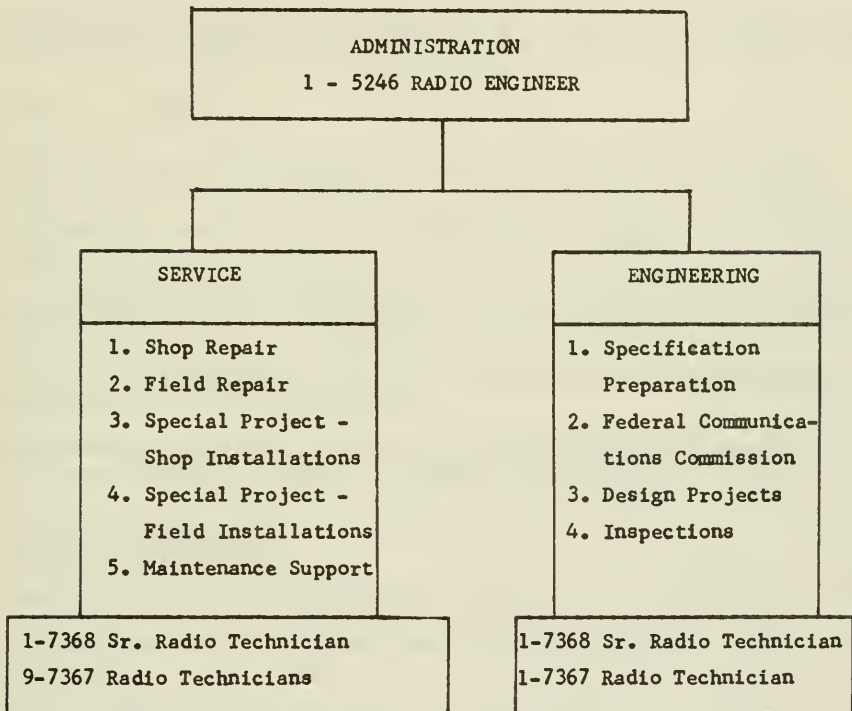
NOTES

- (A) Recovery of damages is deposited to General Fund
- (B) Collections offset actual cost for each inspection of overhead line wires.

ADMINISTRATION AND SUPPORT

<u>PROGRAM OBJECTIVE</u>	<u>ACTUAL PERFORMANCE</u>
To accomplish 90% of the Department objectives.	70%
To effectively collect 50% of all damage claims involving Traffic Signals, Parking Meters and Police & Fire Alarm facilities.	50%
To bring 100% of the Department's personnel onto positive posting for payroll.	100%

RADIO-ELECTRONIC COMMUNICATIONS SERVICES PROGRAM



RADIO ELECTRONIC
COMMUNICATIONS SERVICES PROGRAM

PROGRAM GOAL

TO EFFECTIVELY CONSULT, PLAN, DESIGN, MANAGE AND SERVICE RADIO ELECTRONIC COMMUNICATIONS SYSTEMS FOR VARIOUS DEPARTMENTS OF THE CITY & COUNTY OF SAN FRANCISCO.

PROGRAM OBJECTIVES

- To complete the design of 60% of the Engineering Projects within schedule and budget.
- To complete the inspection of 90% of the Engineering Projects within contract schedule.
- To process 80% of the division's correspondence, specifications and records within schedule.
- To keep an average of 83% of all Portable and Mobile Radio/Electronic units operational.
- To restore to service 72% of the fixed Radio/Electronic equipment within 4 hours of reported failure.

PROGRAM PERFORMANCE

	81/82
- Engineering design projects completed within schedule	<u>29%</u>
- Engineering project inspections completed within schedule.	100%
- Correspondence, specifications and records completed within schedule.	100%
- Portable Radio/Electronic units operational.	97%
Mobile Radio/Electronic units operational.	99%
- Fixed Radio/Electronic equipment restored to service within 4 hours of reported failure.	99%

All program objective targets have been met or exceeded this year with the exception of the design engineering projects target. This target was not met due to an excessive project workload, and also, our dependence on others (Pacific Telephone Co. and other Contractors), not under our direct control, to complete their portions of the projects.

We plan to improve the performance for this objective by changing the method of data measurement to correspond to those areas where we have direct control.

RADIO ELECTRONIC COMMUNICATIONS SERVICES PROGRAM ACTIVITIES

Radio Engineering and Servicing are the two major functions of the Radio Electronic Communications Services Program.

General responsibilities are to consult, plan, design, manage and service the radio electronics communications systems for the various Departments of the City and County of San Francisco.

This Division provides expertise and services through estimates, specifications, equipment procurement, licensing, installation, maintenance, repair and service of any City radio electronics communications system. This work is done in conformance with Federal Communications Commission Rules and Regulations and Industry Standards. Special electronics projects, funded by inter departmental work orders, are also part of this divisions responsibility.

SERVICING:

1 - Shop repair activity.

Services malfunctioning portable and mobile radio electronic units and vehicular Radio Electronic Systems brought into the shop from operational systems:

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) Vehicle Systems Serviced	1956	1481
(B) Mobile Units Serviced	660	899
(C) Portable Units Serviced	1272	1307

2 - Field repair activity.

Maintains fixed field radio and electronics equipment at various field locations throughout the City.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) Fixed units in service.	372	486
(B) Fixed units serviced	1308	1529

* Calculated data - Department was not on MBO format for entire Fiscal Year 1980-1981.

3 - Special Project

Shop installation activity.

Performs installation of new and rehabilitated mobile radio electronic equipment. Inspects new portable and mobile radio electronic equipment before operational use.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) Mobile Units installed	288	334
(B) Mobile Units removed	396	244
(C) New Portable/Mobile units inspected	N/A	409

4 - Special Project

Field installation activity.

Pre-tests, inspects, installs, adjusts and accepts new fixed radio electronic equipment and systems at various field locations throughout the City.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) New fixed equipment pre-tested and inspected.	118	51
(B) New fixed equipment/systems installation, adjustment & acceptance. (non-recurring)	588	2

5 - Maintenance support activity.

Service record data is kept for all portable, mobile and fixed equipment systems. Stock records and levels are kept to assure availability of necessary items to support the maintenance and repair of all fixed, mobile and portable radio electronic equipment. Calibration records are kept for all fixed, mobile and portable equipment.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) Service order record data	2940	5014
(B) Support requisitions	424	440
(C) F.C.C. Calibrations	1908	2145

* Calculated data - Dept. was not on MBO format for the entire Fiscal Year of 1980-1981.

ENGINEERING

(1) Engineering specification preparation activity.

Developes written specifications that identifies parameters of equipment needed to meet communications requirements. Prepares cost estimates for system design projects and equipment procurement. Performs preliminary studies and field surveys prior to development of specifications.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) Specifications	54	74
(B) Estimates	105	134

(2) FCC licensing activity.

Applies to the Federal Communications Commission for authority to install and operate fixed and mobile radio equipment. Obtains coordination and approval of area communications agencies. Reviews and modifies licenses as required.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) F.C.C. applications	41	52
(B) F.C.C. coordinations	8	22
(C) F.C.C. renewals	28	64

(3) Engineering design projects activity.

Consults, plans, designs, implements and manages various new projects for the changing needs of City Departments.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) Projects	17	8

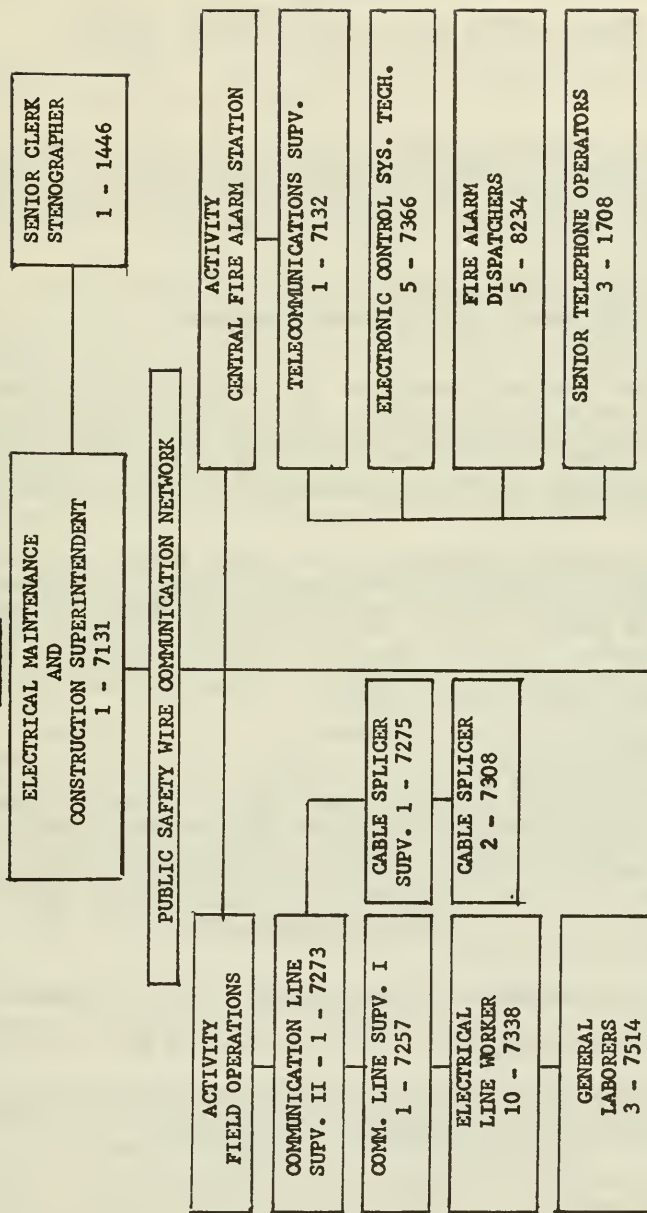
(4) Inspection activity.

Inspection of installed systems is made to assure compliance with specifications.

<u>Program Output</u>	<u>80/81*</u>	<u>81/82</u>
(A) Inspections	17	8

* Calculated data - Dept. was not on MBO format for entire Fiscal Year 1980-1981

CHART A



SUPPORT SERVICES

MAINT. MACHINIST
2 - 7332

PAINTER
1 - 7346

PROGRAM

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

GOAL: To effectively maintain public safety wire line circuits in order to provide timely fire protection, police and emergency responses in compliance with requirements of National Fire Protection Association regarding maintenance and testing.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.
Activities are:

Operation and maintenance of the Central Fire Alarm Station on a 24-hour basis. This activity includes maintenance and service of the computer-assisted fire alarm dispatch system with teletype and voice announce consoles in 44 Fire Stations and associated agencies of the Fire Department.

Operation and maintenance of the City's Fire and Police Non-Radio Communication Systems. This activity consists of maintenance of the Fire Box Alarm System, Police Call-box System, Police Teletype System, Private Telephone System, Mayor's Emergency Telephone System, Air Raid Siren System along with the related Overhead Line and Underground Cable System.

Management Data System:

This data system is interfaced with the computer main frame at the Central Fire Alarm Station using Department cable pairs to Fire Department Headquarters. CRT data terminals and line printers are used by various bureaus of the Fire Department Administrative Headquarters to send, store or retrieve data from the computer main frame.

Personnel assigned to this program are: (See Chart A)

Central Fire Alarm Station activities include the following:

24-hour operation of the telephone switchboard which provides service to all units and bureaus of the Fire Department and the Department of Electricity.

Monitors fire box alarm panels connected to all street fire alarm boxes. Alarms received are transmitted thru the computer which provides the Fire Department Bureau of Communications assignment officer with a recommended assignment for dispatch.

Monitors hot lines and registers from private Central Office fire alarm companies.

Tests 43 circuits connected to the air raid siren warning system. Tests sirens on a weekly basis to insure satisfactory operation.

Conducts scheduled tests of fire alarm box circuits, dispatch circuits and emergency power equipment.

Coordinate test and repair activities with field personnel.

Field operation activities consist of the following:

Repair and maintenance of the City's Fire Alarm Box System along with the System's related overhead and underground circuits.

Repair and maintenance of the Police ring-in Telephone System along with the System's related wiring.

Routine replacing of overhead lines and underground cables on an as needed basis.

Testing of the City's Fire Alarm Box System, auxiliary fire alarm systems connected to 130 public schools and supervision of auxiliary connections from various public buildings.

Expansion of the Mayor's Emergency Telephone System.

This operation also has personnel in the field on a 24 hour basis to respond to complaints on fire alarm boxes, fire station equipment, police telephones, traffic signals or any other complaint involving City property. This trouble shooting detail is available for immediate response to most emergency situations throughout the City.

PROGRAM OBJECTIVES

QCA

% of Central Fire Alarm complaints responded to in 1 hour. Objective achieved (96.4%) was slightly above goal of 95%.

QCB

% of Fire House complaints responded to in 1 hour. Objective achieved (86.1%) was below goal of 95% due to the fact that low priority complaints, that had no direct effect on system reliability, were deferred.

QCC

Reliability of fire alarm boxes. Objective achieved (96.5%) was within the permissible tolerance of the goal of 99%.

QCD

Testing of fire alarm boxes.

Objective achieved (75.3%) was below the stated goal of testing 50% of all the boxes monthly.

QCE

Reliability of Central Ring in System.

Objective achieved (86.3%) was below goal of 99%.

Achieving of goals during FY 1981/82 was difficult due to retirement of a 7308 Cable Splicer and severe weather conditions. The unforeseen storms during 1981/82 caused heavy damage to both the overhead and underground facilities of the Department. Personnel within the Public Safety Program worked under very adverse and hazardous conditions to maintain the reliability of the Departments' facilities.

CENTRAL FIRE ALARM STATION

In addition to the Program Objectives, other activities carried out by personnel at the Central Fire Alarm Station are:

24-hour radio contact with field personnel for immediate response to emergencies.

Summary of complaints received by personnel during FY 1981/82:

Fire Alarm Circuits	488
Fire Alarm Boxes	88
Police Call Box Locals	80
Fire Station Line trouble	136
* SA/TPE Fire Stn. equipment	350
** SA/TPE - CFAS	99

* Teletype and Voice Announce Consoles in Fire Stations.

** Command & Control equipment - CFAS.

In addition to the Program Objectives, other activities carried out by personnel in the Public Safety Program, field operations were:

Installation of 4 new Fire Alarm Boxes.

Relocated 2 Fire Alarm Boxes.

Removed 5 Fire Alarm Boxes.

Repaired 59 Fire Box movements in shop.

Repaired 4 Fire Alarm Boxes in field.

Made repairs to damaged Fire Alarm Boxes at 37 locations.

Repaired damages to overhead or underground facilities at 6 locations.

Repaired or replaced Fire Alarm Box standards at 57 locations.

Responded to 38 complaints on auxiliary Fire Alarm Systems in public schools.

Assisted the following agencies with the testing of their auxiliary Fire Alarm Systems:

Municipal Railway-Kirkland Yard.
San Francisco Port Authority.
Department of Public Works-2323 Army St.
State of California - 1st & Mission Streets.
Hunter's Point Shipyard.
University of California Hospital Complex.
Hall of Justice - 850 Bryant St.

Hall of Justice Communications

Maintained Police Telephone Switchboard with 89 telephones in the Hall of Justice.

Maintained the Chief of Police private telephone system.

Maintained and repaired the visitor's telephone system at 6th & 7th floor jails.

Installed 5 new telephones on the Mayor's Emergency Telephone System.

Central Radio Station

Maintained and conducted tests on two (2) emergency generators.

Checked radio tower aircraft warning lights nightly and reported status as required by F.C.C. regulations.

Conducted nightly security checks.

Replaced aircraft warning lights as required.

Air Raid Warning System

Tested, maintained and repaired the City's Air Raid Siren System.

Removed, rebuilt and restored 8 sirens at various locations throughout the City. Replaced cabinets at 5 locations.

Air raid warning system has been upgraded from a low of 8 operating sirens in FY 1979/80 to 40 operating sirens in FY 1981/82.

Overhead Lines and Underground Cables

Transferred facilities to new P.G. & E. poles at 57 locations.

Replaced crossarms at 48 locations.

Replaced 11,350 ft. of overhead line wire.

Repaired, spliced and cutover underground cables at 210 locations.

Performed routine maintenance to overhead lines at 539 locations.

Cleared trouble on Fire Alarm circuits at 224 locations.

Cleared trouble on Command and Control circuits at 40 locations.

Replaced defective cables or installed in new areas, 27,795 ft. of various size cables.

Installed 570 ft. of various size conduits in City Streets.

The following Work Order projects were worked on:

- W.O. #1-0739 - Cow Hollow - Undergrounding.
- W.O. #1-1315 - Islais Creek - Cleanwater.
- W.O. #1-1167 - 55 line relocations.
- W.O. #2-0452 - Ashbury Tank - Auxiliary Fire Alarm.
- W.O. #2-0682 - Moscone Center - Auxiliary Connection.
- W.O. #2-0980 - 24 Line relocations.

The following Special Jobs were worked on or completed:

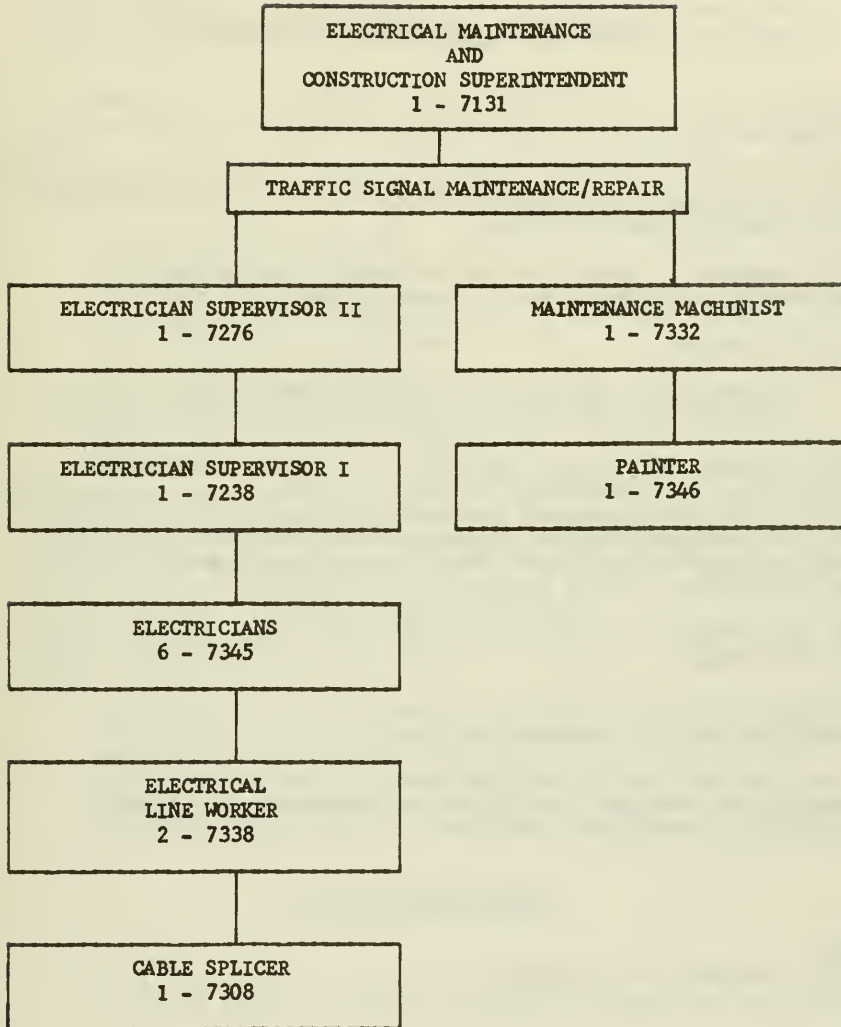
- SJ 271 - Quint & Jerrold - Overhead relocation.
- SJ 308 - Viacom - Relocations.
- SJ 288 - Executive Park - New Fire Alarm Boxes.
- SJ 315 - Hilton Hotel - Auxiliary Fire Alarm.
- SJ 322 - Viacom - Relocations.
- SJ 328 - Viacom - Relocations.
- SJ 334 - 101 Lombard - Pullbox relocation.
- SJ 335 - 101 Lombard - Firebox relocation.

Checked plans submitted by other City Departments, Utility Companies, Developers, Street Improvement Contracts and various other agencies.

Marked underground conduits and ducts as required.

Estimated costs and submitted plans to Auxiliary Fire Alarm Companies for connection to the Municipal System.

CHART B



PROGRAM

TRAFFIC SIGNAL MAINTENANCE/REPAIR

GOAL:

To effectively maintain traffic signals along with associated underground cables on a 24-hour basis in order to provide for efficient traffic flow.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Activities are:

To provide field service, installation, shop repair and overhaul of 934 intersections of traffic signals.

This program is funded from gas tax revenue via a Work Order from the Department of Public Works. Due to decreases in gas tax revenues over the last several years, funding for this program has not kept pace with increases in the cost of material nor with the 19% wage increase allowed the Electrical crafts during fiscal 1981/82.

The end result is that there were reductions in the level of staffing.

Priorities were established to make better use of the capabilities of a reduced staff.

Prime emphasis was placed on prompt response to citizen complaints, and this objective was achieved in spite of staffing and workload problems.

PROGRAM OBJECTIVES

QFA

% of intersections relamped.

Objective achieved (73.3%) was below the goal of 80%.

QFB

% of complaints responded to in 1 hour.

Objective achieved (94%) was well within the allowed tolerance of the goal of 95%.

QFC

Number of dispatchers/controllers overhauled or serviced.

Objective achieved (27%) was below goal of 50%.

This program also was hampered by severe weather conditions, and the retirement of a 7345, Electrician. The total number of intersections were also increased by ten (10).

In addition to the Program Objectives, other activities carried out by personnel in the Traffic Signal Program were:

New intersections installed and placed in service:

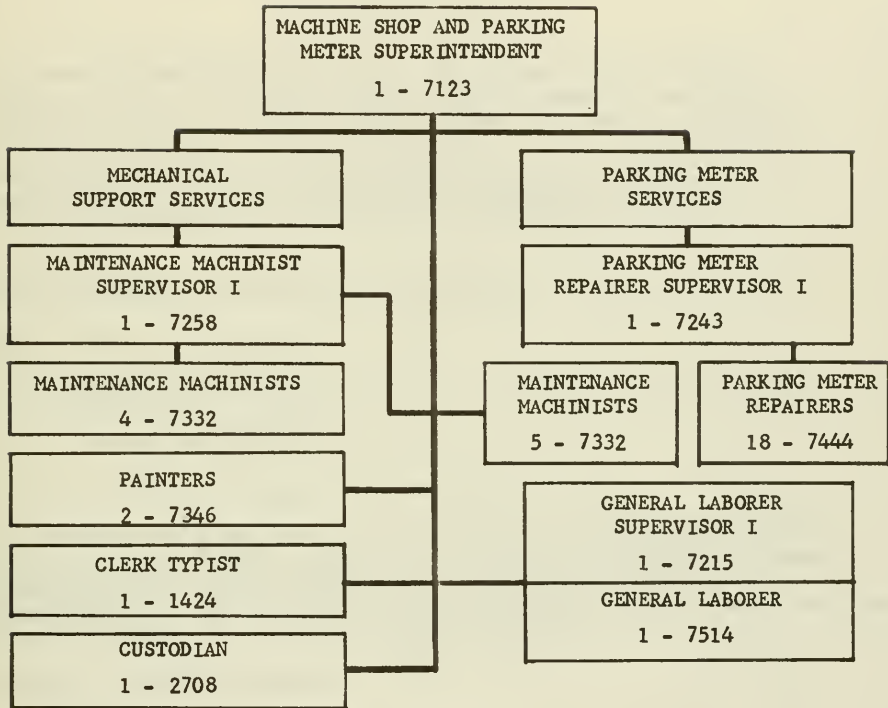
- (1) Eddy and Fillmore
- (2) Buchanan and McAllister
- (3) Buchanan and Fulton
- (4) Battery and Filbert
- (5) Greenwich and Sansome
- (6) Folsom and 15th St.
- (7) Columbus and Jackson
- (8) Pacific and Powell
- (9) Eddy and 5th St. North
- (10) Marina and Lyon

Responded to 2305 complaints on a 24-hour basis.
Made repairs to damaged equipment at 139 locations.
Made repairs to damaged conduits, and replaced wiring at 30 locations.
Replaced signal heads at 160 locations.

Made relocations, installations and modifications under Special Jobs at:

California and Leavenworth - Reroute $1\frac{1}{2}$ " conduit.
California and Powell - Installed relay panel and wired.
Haight and Divisadero - Modified signals for 3 phase.
San Jose and Alemany - Installed new fixed time cabinet.

MECHANICAL DIVISION
FISCAL YEAR 1981/82



ALLOCATION OF PERSONNEL IN SUPPORT OF VARIOUS PROGRAMS

	<u>PUBLIC SAFETY</u>	<u>PARKING METERS</u>	<u>TRAFFIC</u>	<u>ADMIN.</u>
M.S. AND P.M. SUPT.				1
MAINT. MACH. SUPV. I				1
P.M. REPAIRER SUPV. I		1		
GEN. LABORER SUPV. I		1		
MAINT. MACHINISTS	2	5	1	1
P.M. REPAIRERS		18		
PAINTERS	1		1	
GENERAL LABORERS		1		
CUSTODIAN				1
CLERK TYPIST				1

MECHANICAL DIVISION
MANUFACTURE, MAINTENANCE AND REPAIR
FOR FISCAL 1981/82

The Mechanical Division under the direction of the Machine Shop and Parking Meter Superintendent has full responsibility for the Parking Meter program and is a support service for the Departments' other programs and functions, which includes the maintenance, repair and manufacturing of all mechanical equipment under the jurisdiction of the Department of Electricity.

The equipment includes the following:

2042 - Fire Alarm Boxes

468 - Police Call Boxes

75 - Desk Set Phones

934 - Traffic Signal Intersections

All mechanical equipment at the Central Fire Alarm Station, Central Radio Station, Hall of Justice Communications Room, and the Plant at 901 Rankin St., including five (5) emergency gas and diesel driven generators at the above and the Youth Guidance Center and Bernal Heights.

16,002 - Parking Meters

40 - Emergency Warning Sirens

56 - pieces of gas driven equipment, 49 mobile and 7 stationary. The major repairs and servicing of the above equipment were done at the Purchasing Shops.

The maintenance of three (3) Departmental Buildings; the Plant at 901 Rankin St., Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through Contractual services.

MECHANICAL DIVISION

FISCAL 1981/82

The following mechanical services were performed in support of the public safety, traffic signal, radio and administration programs:

Manufactured

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete Fire Alarm Boxes in the new Underground Districts. New and replacement parts for Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens and Instruments were manufactured in the Machine Shop as needed.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

Maintenance and Repair

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the public.

Painting

Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the shop and field. Due to a shortage of personnel, we are on a four (4) to five (5) year painting cycle, rather than a two (2) year cycle recommended for some of the above equipment.

Other Duties

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all Mechanical equipment were kept.

MECHANICAL DIVISION
SUMMARY OF ACTIVITIES

FISCAL 1981/82

	<u>Total Numbers</u>
Manufactured Fire Alarm Boxes, parts and related equipment.	1622
Repaired Fire Alarm Boxes, parts and related equipment.	723
Manufactured Police Call Boxes and related equipment.	004
Repaired Police Telephones and related Communications equipment.	056
Manufactured Traffic Signal Parts and Special Tools.	146
Repaired Traffic Signals, parts and related equipment.	395
Manufactured and repaired miscellaneous Air Raid Siren parts and related equipment.	020
Manufactured and repaired miscellaneous radio equipment items, also communications at the Hall of Justice.	534
Miscellaneous items manufactured and repaired for Plant and vehicular equipment.	756
Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	039
All Registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk St. (plus related equipment)	1600
Emergency Generators serviced and tested at Central Radio Station, Youth Guidance Center, and McLaren Park. (plus related equipment)	135

MECHANICAL DIVISION

PAINTING

FIELD AND SHOP

FISCAL 1981/82

The following items have been hand prepared or sand-blasted, primed and finish coated:

<u>FIRE ALARM SYSTEM</u>	<u>Total Numbers</u>
Fire Alarm Boxes-Field and Shop.	242
Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc.-Field & Shop.	377
<u>POLICE COMMUNICATIONS</u>	
Police Call Boxes-Field & Shop	164
Miscellaneous items-Shop	000
<u>TRAFFIC SIGNALS</u>	
Vehicular Signals-Field & Shop	529
Signal Controllers-Field & Shop	051
Walk-Wait Pedestrian Signals-Field & Shop	054
Signal Posts, Poles, etc.-Field & Shop	484
Traffic Signal Visors & Louvers-Field & Shop	107
<u>MISCELLANEOUS</u>	
Cabinets, Siren Parts, Ladders (oiled-shellacked) Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, touch up, etc.	185
Painting at the Plant at 901 Rankin St. at the Central Fire Alarm Station at 1003 Turk St. and at the Central Radio Station on Twin Peaks.	000

MECHANICAL DIVISION

PARKING METER PROGRAM

FISCAL 1981/82

GOAL:

To effectively maintain and repair Parking Meters in order to maximize revenues.

PROGRAM OBJECTIVES

To insure effective field service and inspection to 80% of the City's 16,002 Parking Meters daily using less than one labor hour for every 103 meters serviced.

To insure accuracy, dependability and increase years of service by performing a complete overhaul in the shop to 50% of the Parking Meter mechanisms using less than .89 labor hours per mechanism.

To complete 70% of the Parking Meter post damages using less than .85 labor hours per each occurrence.

PROGRAM OUTPUT

	<u>1980/81</u>	<u>1981/82</u>
% of meters serviced daily	80%	73%
% of meters overhauled	50%	27%
% of meter posts installed daily	70%	64%

Objectives were not met because of vacated positions due to retirements, promotionals, a termination and an acute illness.

The decline is also due to manpower diverted to additional work involving the re-combining of 2400 Parking Meter Coin Door Locks, construction of window security bars, rebuilding of air-raid sirens and additional parking meter installations.

Revenues from Parking Meters for the Fiscal Year 1981/82 was \$ 6,223,622.84 which was an increase of \$ 1,038,462.84 over the prior fiscal year.

MECHANICAL DIVISION

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

FISCAL YEAR 1981/82

NATURE OF TROUBLE

#7444 - PARKING METER REPAIRER

Jammed Intentionally.....	180796
Cases Cleaned.....	4625
Damaged Meters Removed.....	143
Exchange Heads.....	6604
Exchange Mechanisms.....	6711
Exchange Mechanisms for Cleaning..	2285
Exchange Timers.....	992
Hoods Removed.....	18555
Lock Open Coin Doors.....	10
Tighten Heads.....	667
Tighten Mechanisms.....	18
Mechanical Adjustment Mechanisms..	17280
Mechanical Adjustment Cases.....	3534
Meters Installed.....	487
Meters Replaced.....	548
Meters Removed from Service.....	234
Temporarily out of Service.....	178
O.K. Requested Inspections.....	8432
Seal Glass.....	-0-
Replace Coin Glass.....	798
Replace Coin Lock.....	263
Replace Parts to Cases.....	3275
Replace Parts to Mechanisms.....	3589
Replace Signal Glass.....	129
Stuck Coins.....	12642
Service Coin Door.....	4
Service Coin Lock.....	730
Stuck Indicators.....	1679
Stuck Signals.....	2546
Stuck Timers.....	5211
Unwound Main Springs.....	8072
Winding Hole Plugged.....	43
Checked for Traffic Fines Bureau..	398

#7332 MAINTENANCE MACHINIST

Timers Rebuilt.....	-0-
Mechanisms Cleaned & Overhauled..	6572
Shop Repairs on Cases.....	1902
Exchange Mechanisms.....	2063
Prepare Cases (New Meters).....	475
Repair Case in Field.....	46
Disassemble Mechanisms.....	-0-
Repair Collection Equipment.....	57

#7346 PAINTER

Meters Painted.....	166	166
---------------------	-----	-----

TOTAL.....	309868
------------	--------

WORK ON POSTS:

#7444 P.M. REPAIRER

Straightened.....	1048
-------------------	------

#7332 MAINT. MACH.

Weld Posts in Field.....	14
--------------------------	----

#7514 LABORER

Straightened.....	1212
Removed.....	86
Relocated.....	17
Installed.....	450
Replaced.....	447
Reset.....	816

TOTAL.....	4090
------------	------

COMPLAINTS

RECEIVED BY

TELEPHONE:

Tax Office.....	-0-
S.F.P.D.....	1730

TOTAL.....	1730
------------	------

Replace Missing Coin Can.....	350
-------------------------------	-----

Exchange Defective Coin Can..	168
-------------------------------	-----

Recombined Coin Lock.....	24
---------------------------	----

294497

11115

166

4090

309868

INVENTORY OF PARKING METERS

AS OF JUNE 30, 1982

<u>District</u>	<u>Number</u>	<u>Number in Off-Street Parking Lots</u>
A	<u>1099</u>	<u>69</u>
B	<u>899</u>	<u>119</u>
C	<u>804</u>	<u> </u>
D	<u>904</u>	<u>40</u>
E	<u>721</u>	<u> </u>
F	<u>998</u>	<u>81</u>
G	<u>840</u>	<u> </u>
H	<u>798</u>	<u> </u>
I	<u>576</u>	<u> </u>
J	<u>794</u>	<u> </u>
K	<u>1018</u>	<u> </u>
L	<u>578</u>	<u>31</u>
M	<u>773</u>	<u> </u>
N	<u>914</u>	<u> </u>
O	<u>609</u>	<u>73</u>
P	<u>708</u>	<u>20</u>
R	<u>658</u>	<u>299</u>
S	<u>827</u>	<u>36</u>
T	<u>677</u>	<u>39</u>
TOTAL	<u>15195</u>	<u>807</u>
GRAND TOTAL.....		<u>16002</u>

DEPARTMENT OF ELECTRICITY

RADIO COMMUNICATIONS

DOCUMENTS DEPT.

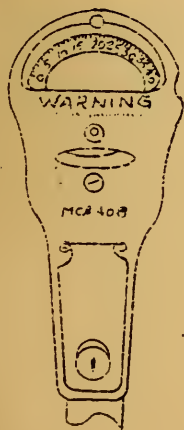
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ANNUAL REPORT ENDING JUNE 30, 1983

TRAFFIC
SIGNALS

PARKING METERS



POLICE
TELEPHONE

DEPARTMENT
OF
ELECTRICITY

ANNUAL REPORT
DEPARTMENT OF ELECTRICITY
CITY AND COUNTY OF SAN FRANCISCO

FISCAL YEAR 1982 - 1983

HON. DIANNE FEINSTEIN

MAYOR

ROGER BOAS

CHIEF ADMINISTRATIVE OFFICER

JULES T. BECKLEY

GENERAL MANAGER



November 15, 1983

Mr. Roger Boas
Chief Administrative Officer
Room 289-City Hall
San Francisco, California

Dear Mr. Boas:

In accordance with the provisions of Section 3.501 of the Charter of the City and County of San Francisco, I am pleased to submit the annual report of the Department of Electricity for Fiscal Year 1982/83.

The Department continues to fulfill its responsibilities and performs its functions through organization into four divisions: Administration, Electrical, Mechanical and Radio.

This report reflects the Department's goals, performance objectives, and measures for the 1982-1983 Fiscal Year.

The cost of operating the Department of Electricity during Fiscal Year 1982/83 was \$4,148,218.00 or 8.30% greater than for the prior Fiscal Year.

I sincerely appreciate the help and understanding extended by you and your staff during this past year.

Respectfully submitted,

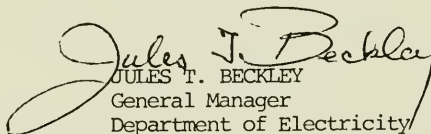

JULES T. BECKLEY
General Manager
Department of Electricity

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ADMINISTRATION

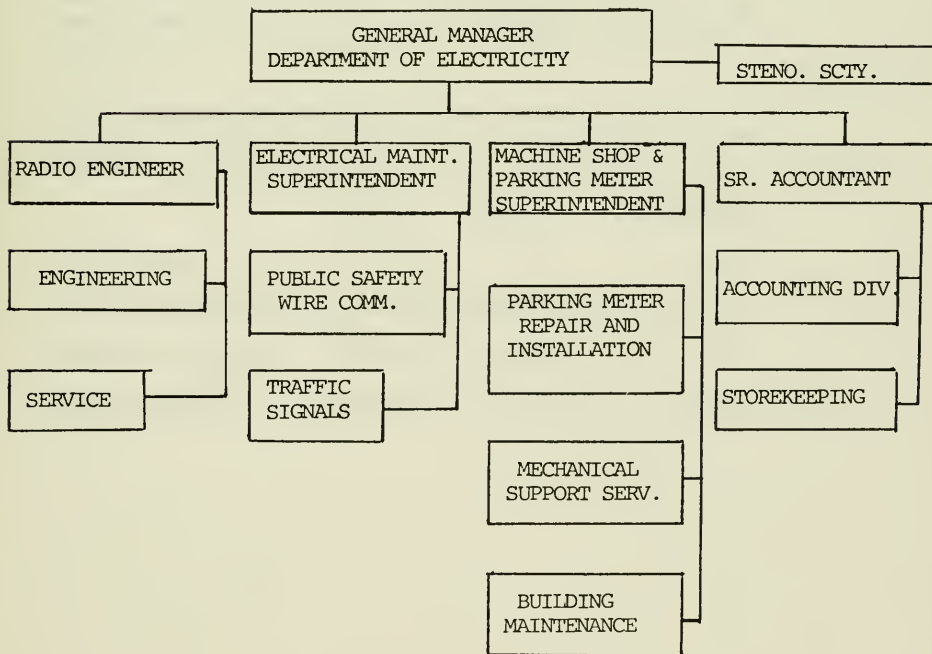
The Department of Electricity is a General Service Department whose main function is to provide service in the areas of:

- Parking Meters
- Traffic Signals
- Radio Communications
- Wire Lines/Teletype Communications
- Fire Alarm Box Systems/Dispatch and Command & Control Functions
- Overhead and Underground Wire and Cable Systems
- Air Raid Siren Systems
- Operation of Fire Department Switchboard
- Other Ancillary Support Functions

Effective management and coordination is provided by the General Manager and a Division Head in charge of each program.

Major Programs are:

- [a] Administration/Management & Departmental Support Services
- [b] Parking Meter Maintenance & Repair
- [c] Public Safety Wire Communications
- [d] Radio Communications
- [e] Traffic Signal Maintenance/Repair



ACCOUNTING (ADMINISTRATION)

The Senior Accountant, under the direction of the General Manager, is responsible for the Accounting [Administration] Division. The Division is composed of three Department of Electricity personnel and one Storekeeper from the Purchasing Department. In addition to Accounting functions, various administrative tasks are assigned which require a portion of the services of *two additional personnel. The personnel are as follows:

- 1 - 1652 Senior Accountant
- 1 - 1650 Accountant
- 1 - 1632 Senior Account Clerk
- 1 - 1934 Storekeeper
- *1 - 1446 Senior Clerk Stenographer
- *1 - 1424 Clerk Typist

For functional use, the Division maintains an orderly system of recording costs and revenues which are compiled and reported to management in timely periodic reports.

For cost control of labor, material, services, and equipment, the Division maintains approximately seventy cost accounts, as well as accounting for individual budgetary line items. Also, the Division, during the Fiscal Year 1982-1983, compiled costs for 183 individual Work Orders, Special Jobs, and projects, an increase of 22% as compared to Fiscal Year 1981-1982.

During 1982/83, 148 billings, in the amount of \$154,723.64 were made to cover Special Jobs, and damages to City property. Comparison with previous years is as follows:

	<u>1982/83</u>	<u>1981/82</u>	<u>% Increase [Decrease]</u>
No. Billings	148	155	[4.5%]
Amount of Billings	\$154,723.64	\$139,245.34	11.12%
Damages - Billings	84,422.69	78,080.14	8.12%
Other Billings	70,300.95	61,165.20	14.94%

ACCOUNTING (ADMINISTRATION)

ESTIMATED AND COMPARATIVE REVENUE

	<u>Estimated Revenue 1982/83</u>	<u>Collections Cash Received 1982/83</u>	<u>1981/82</u>	<u>% Increase [Decrease]</u>
Damage Claims Traffic Signals [Note A]	\$35,000.00	\$38,360.24	\$44,534.00	[13.86%]
Damage Claims Parking Meters [Note A]	4,000.00	4,916.05	5,129.00	[4.15%]
Damage Claims Police & Fire Alarm Facilities [Note A]	5,000.00	2,257.87	8,178.00	[72.39%]
Electrical Inspection & Permit [Note B]	1,800.00	1,815.00	1,995.00	[9.02%]
Housemoving Electrical Work	<u>35.00</u>	<u>-0-</u>	<u>26.00</u>	<u>[100%]</u>
TOTALS	\$45,835.00	\$47,349.16	\$59,862.00	

COMMENT

Collections include all Department of Electricity Revenue collected by this Department or another.

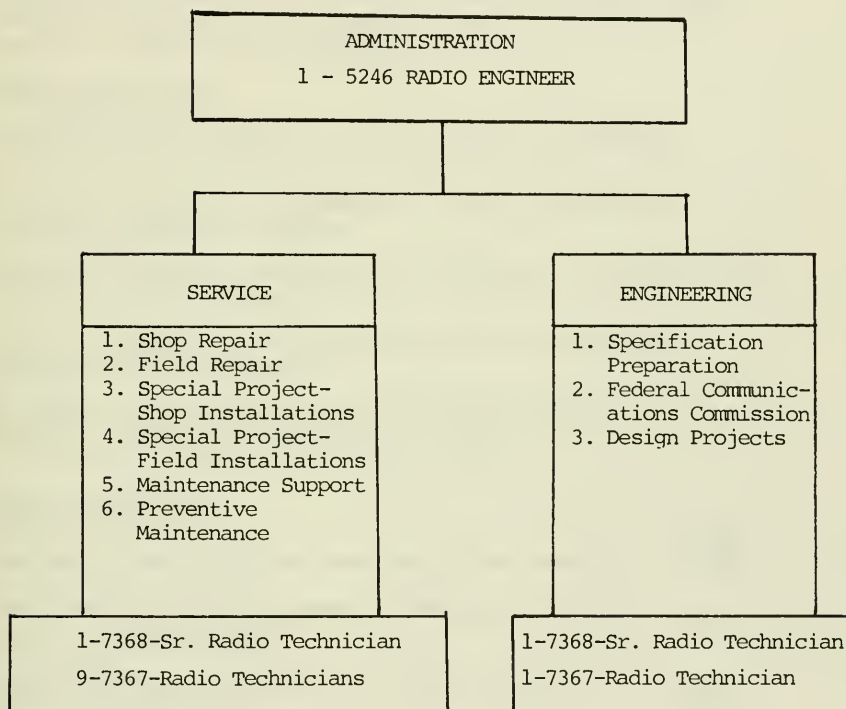
NOTES

- [A] Recovery of damages is deposited to General Fund.
- [B] Collections offset actual cost for each inspection of overhead line wires.

ADMINISTRATION AND SUPPORT

<u>PROGRAM OBJECTIVE</u>	<u>ACTUAL PERFORMANCE</u>
To accomplish 80% of the Department objectives.	80%
To effectively collect 40% of all damage claims involving Traffic Signals, Parking Meters and Police & Fire Alarm facilities.	54%
To effectively provide 75% of requested monthly repairs in support of all programs including buildings, facilities and automobiles.	75%

RADIO-ELECTRONIC COMMUNICATIONS SERVICES PROGRAM



RADIO ELECTRONIC

COMMUNICATIONS SERVICES PROGRAM

PROGRAM GOAL

TO EFFECTIVELY CONSULT, PLAN, DESIGN, MANAGE AND SERVICE RADIO ELECTRONIC COMMUNICATIONS SYSTEMS FOR VARIOUS DEPARTMENTS OF THE CITY & COUNTY OF SAN FRANCISCO.

PROGRAM OBJECTIVES

- To complete the design of 60% of the Engineering Projects within schedule and budget.
- To complete preventive maintenance of 80% of fixed Radio/Electronic Equipment annually.
- To process 80% of the division's correspondence, specifications and records within schedule.
- To keep an average of 90% of all Portable and Mobile Radio/Electronic units operational.
- To restore to service 80% of the fixed Radio/Electronic equipment within 4 hours of reported failure.

PROGRAM PERFORMANCE

	<u>82/83</u>
- Engineering design projects completed within schedule	66.25%
- Fixed Radio/Electronic Equipment preventive maintenance completed within schedule.	55.50%
- Correspondence, specifications & records completed within schedule.	100%
- Portable Radio/Electronic units operational.	98.35%
- Mobile Radio/Electronic units operational.	98.68%
- Fixed Radio/Electronic equipment restored to service within 4 hours of reported failure.	99.12%

All program objective targets have been met or exceeded this year with the exception of the preventive maintenance target. This target was not met due to an excessive project workload, and also, the need for additional personnel.

RADIO ELECTRONIC COMMUNICATIONS SERVICES PROGRAM ACTIVITIES

Radio Engineering and Servicing are the two major functions of the Radio Electronic Communications Services Program.

General responsibilities are to consult, plan, design, manage and service the radio electronics communications systems for the various Departments of the City and County of San Francisco.

This Division provides expertise and services through estimates, specifications, equipment procurement, F.C.C. licensing, installation, inspection, maintenance, repair and service of any City Radio Electronics Communications System. This work is done in conformance with Federal Communications Commission Rules & Regulations and Industry Standards. Special electronics projects, funded by inter-departmental Work Orders, are also part of this Divisions responsibility.

SERVICING:

1- Shop repair activity:

Services malfunctioning portable and mobile radio electronic units and vehicular Radio Electronic Systems brought into the shop from operational systems:

<u>Program Output:</u>	<u>81/82</u>	<u>82/83</u>
[A] Vehicle Systems Serviced	1481	1908
[B] Portable & Mobile Units Serviced	2206	3498

2- Field repair activity:

Maintains fixed field radio and electronics equipment at various locations throughout the City.

Program Output:

[A] Fixed units serviced	1529	2201
--------------------------	------	------

3- Special Projects:

Shop installation activity:

Performs installation of new and renovated mobile radio electronic equipment. Inspects new portable and mobile radio electronic equipment before operational use.

Program Output

[A] Mobile Units installed	334	301
[B] Mobile Units removed	244	243
[C] New Portable/Mobile units inspected [acceptance checks]	409	209

4- Special Projects

Field installation activity.

Pre-tests, inspects, installs, adjusts and accepts new fixed radio electronic equipment and systems at various field locations throughout the City.

<u>Program Output</u>	<u>81/82</u>	<u>82/83</u>
[A] New fixed equipment pre-tested & inspected [Acceptance checks]	51	36
[B] New fixed equipment/systems installation, adjustment & acceptance. [non-recurring]	2	8

5- Maintenance support activity.

Service record data is kept for all Portable, Mobile and fixed equipment systems. Stock records and levels are kept to assure availability of necessary items to support the maintenance and repair of all fixed, Mobile and Portable Radio Electronic Equipment. Calibration records are kept for all fixed, Mobile and Portable equipment.

Program Output.

[A] Service order record data	5014	8338
[B] Support requisitions	440	425
[C] F.C.C. Calibrations	2145	3334

6- Preventive Maintenance.

Preventive maintenance is performed on all fixed Radio and Electronic Equipment on a regular basis.

Program Output:

[A] Preventive maintenance of fixed units.	New objective for 82/83	2299
-----------------------------------------------	-------------------------------	------

ENGINEERING

[1] Engineering specification preparation activity.

Developes written specifications that identifies parameters of equipment needed to meet communications requirements. Prepares cost estimates for system design projects and equipment procurement. Performs preliminary studies and field surveys prior to development of specifications.

ENGINEERING: [cont'd.]

<u>Program Output</u>	<u>81/82</u>	<u>82/83</u>
[A] Specifications	74	57
[B] Estimates	134	116

[2] FCC licensing activity.

Applies to the Federal Communications Commission for authority to install and operate fixed and mobile radio equipment. Obtains coordination and approval of area communications agencies. Reviews and modifies licenses as required.

Program Output.

[A] F.C.C. applications	52	42
[B] F.C.C. coordinations	22	52
[C] F.C.C. renewals	64	142

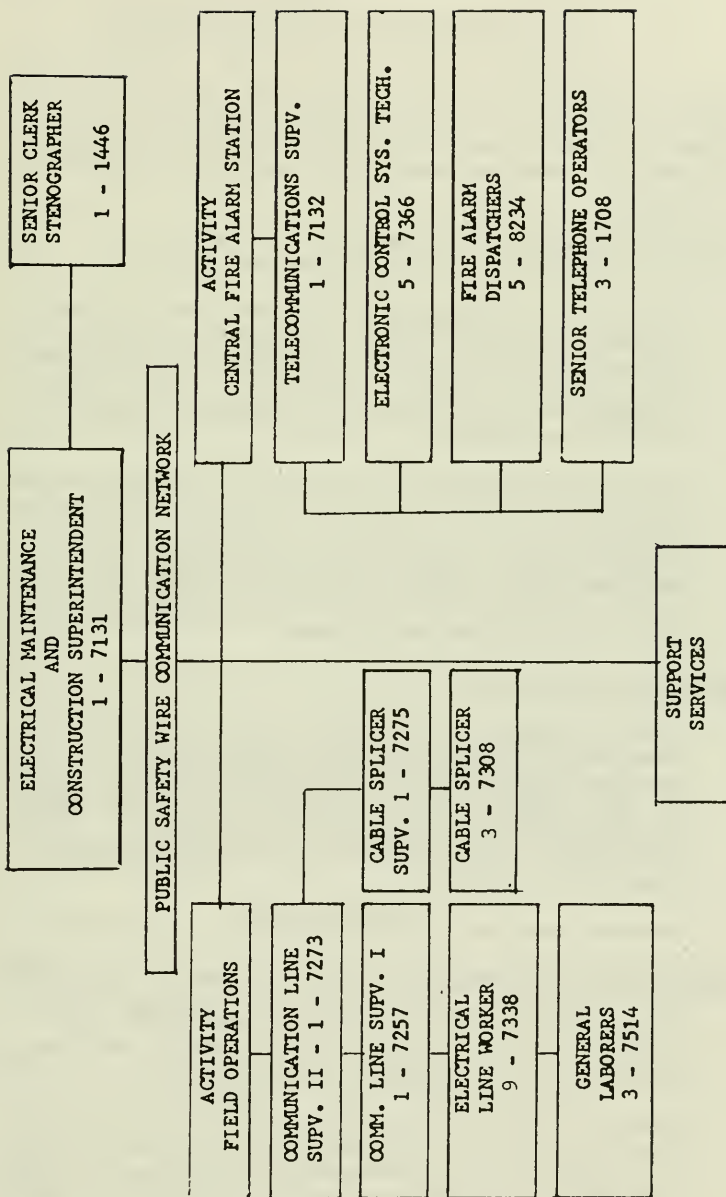
[3] Engineering design projects activity.

Consults, plans, designs, implements and manages various new projects for the changing needs of City Departments.

Program Output

[A] Projects	8	7
--------------	---	---

CHART A



PROGRAM

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

GOAL: To effectively maintain public safety wire line circuits in order to provide timely fire protection, police and emergency responses in compliance with requirements of National Fire Protection Association regarding maintenance and testing.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Operation and maintenance of the Central Fire Alarm Station on a 24-hour basis. This activity includes maintenance and service of the computer-assisted Fire Alarm Dispatch System with teletype and voice announce consoles in 44 Fire Stations and associated agencies of the Fire Department.

Operation and maintenance of the City's Fire and Police Non-Radio Communication Systems. This activity consists of maintenance of the Fire Box Alarm System, Police Call-box System, Police Teletype System, Private Telephone System, Mayor's Emergency Telephone System, Air Raid Siren System along with the related Overhead Line and Underground Cable System.

Management Data System:

This data system is interfaced with the computer main frame at the Central Fire Alarm Station using Department cable pairs to Fire Department Headquarters. CRT data terminals and line printers are used by various bureaus of the Fire Department Administrative Headquarters to send, store or retrieve data from the computer main frame.

Personnel assigned to this program are: [See Chart A]

Central Fire Alarm Station activities include the following:

24-hour operation of the telephone switchboard which provides service to all units and bureaus of the Fire Department and the Department of Electricity

Monitors fire box alarm panels connected to all street fire alarm boxes. Alarms received are transmitted thru the computer which provides the Fire Department Bureau of Communications assignment officer with a recommended assignment for dispatch.

Monitors hot lines and registers from private Central Office fire alarm companies.

Tests 43 circuits connected to the air raid siren warning system. Tests sirens on a weekly basis to insure satisfactory operation.

Conducts scheduled tests of fire alarm box circuits, dispatch circuits and emergency power equipment.

Coordinate test and repair activities with field personnel.

Field operation activities consist of the following:

Repair and maintenance of the City's Fire Alarm Box System along with the System's related overhead and underground circuits.

Repair and maintenance of the Police ring-in Telephone System along with the System's related wiring.

Routine replacing of overhead lines and underground cables on an as needed basis.

Testing of the City's Fire Alarm Box System, auxiliary fire alarm systems connected to 130 public schools and supervision of auxiliary connections from various public buildings.

Expansion of the Mayor's Emergency Telephone System.

This operation also has personnel in the field on a 24 hour basis to respond to complaints on fire alarm boxes, fire station equipment, police telephones, traffic signals or any other complaint involving City property. This trouble shooting detail is available for immediate response to most emergency situations throughout the City.

PROGRAM OBJECTIVES

OCA

% of Central Fire Alarm complaints responded to in 1 hour.
Objective achieved [97.7%] was slightly above goal of 95%.

OCB

% of Fire House complaints responded to in 1 hour.
Objective achieved [94.3%]. Goal of 95% was met.

OCC

Reliability of fire alarm boxes.
Objective achieved [95.88%] was within the permissible tolerance of the goal of 99%.

QCD

Testing of Fire Alarm Boxes.

Objective achieved [11,020] was below the annual goal of 12,000. Underachievement was due to extreme adverse weather conditions and the Departments involvement in two projects: 24 Divisadero Line Electrification and the Viacom rearrangement program.

QCE

Reliability of Central Ring-in System.

Objective achieved [98.08%]. Goal of 99% was met.

Most of the Department's Public Safety Program Goals were met during FY 1982/83 despite severe weather conditions. Storms during this fiscal year again caused heavy damage to both our overhead and underground facilities. For two consecutive years, personnel within the Public Safety Program worked under very adverse and hazardous conditions to maintain the reliability of the Department's facilities.

CENTRAL FIRE ALARM STATION

In addition to the Program Objectives, other activities carried out by personnel at the Central Fire Alarm Station are:

24-hour radio contact with field personnel for immediate response to emergencies.

Summary of complaints received by personnel during FY 1982/83:

Fire Alarm Circuits	604
Fire Alarm Boxes	123
Police Call Box & Locals	83
Fire Station Line trouble	85
* SA/TPE Fire Stn. equipment	358
** SA/TPE - CFAS	77

* Teletype & Voice Announce Consoles in Fire Stations.

** Command & Control equipment - CFAS.

In addition to the Program Objectives, other activities carried out by personnel in the Public Safety Program, field operations were:

FIRE ALARM & POLICE MAINTENANCE

Relocated 5 Fire Alarm Boxes.

Removed 5 Fire Alarm Boxes.

Repaired 108 Fire Box Movements in shop.

Repaired 69 Fire Alarm Boxes in field.

Made repairs to damaged Fire Alarm Boxes at 44 locations.

Repaired or replaced Fire Alarm Box Standards at 24 locations.

Responded to 44 complaints on Auxiliary Fire Alarm Systems in Public Schools.

Tested 1,317 School Fire Alarm Boxes in field.
Tested 10,785 Fire Alarm Boxes in field.
Repaired 19 Police Boxes in field.
Responded to 79 complaints on Police Box maintenance.
Made repairs to damaged Police Boxes at 2 locations.

FIRE HOUSE MAINTENANCE:

Responded to 78 Fire House Station complaints.

TRAFFIC DAMAGE & ROUTINE MAINTENANCE:

Assisted the Traffic Division in the filed at
172 locations.

OVERHEAD LINES & UNDERGROUND CABLES:

Transferred facilities to new P.G. & E. poles at
65 locations.
Replaced Crossarms at 89 locations.
Replaced 16,560 feet of overhead line wire.
Replaced defective cables or installed cables in new
areas. 24,270 feet of various size cable.
Replaced 1-200 pair cable [350 ft.] and cut over in field.
Replaced, spliced and cut over underground cables at
552 locations.
Performed routine maintenance to overhead lines at
598 locations.
Cleared trouble on Fire Alarm Circuits at 389 locations.
Cleared trouble on command & control circuits at 65 locations.
Installed 800 feet of various size conduit in City streets.

The following Work Order Projects were worked on:

W.O. #20980-24 line overhead relocations.
W.O. #10946-Promenade [waterfront].
W.O. #30939-Cow Hollow undergrounding.
W.O. #30472-Sheriff's Dept. at the Hall of Justice
[new phone installations]
W.O. #30383-Air Raid Sirens.
W.O. #31120-Pier 70-Auxiliary connection to Fire
Alarm Box.
W.O. #30814-6th & Judah-Parking Meter installation.
W.O. #30011-Conduit installation for the Department
of Public Works.

The following Special Jobs were worked on or completed:

SJ 355-Bayshore & Jerrold [temp.] overhead main line.
SJ 350-Sutter & Mason-relocate Fire Alarm Box.
SJ 326-Viacom overhead reloactions.
SJ 336-Viacom overhead relocations.
SJ 348-Bosworth & Elk-conduit relocation.
SJ 338-Francisco & Grant-overhead to underground.
SJ 342-Todd Shipyard-auxiliary to Fire Alarm Box #954.

Assisted the following agencies with the testing of their auxiliary Fire Alarm Systems:

Municipal Railway-Kirkland Yard.
San Francisco Port Authority.
Department of Public Works-2323 Army St.
State of California-1st & Mission Streets.
Hunters' Point Shipyard.
University of California Hospital Complex.
Hall of Justice-850 Bryant St.

HALL OF JUSTICE COMMUNICATIONS

Maintained Police Telephone Switchboard with 89 telephones in the Hall of Justice.

Maintained the Chief of Police private telephone system.

Maintained & repaired the visitors' telephone system at the 6th & 7th floor jails.

CENTRAL RADIO STATION

Maintained and conducted tests on two [2] emergency generators.

Checked Radio Tower Aircraft Warning Lights nightly and reported status as required by F.C.C. regulations.

Conducted nightly security checks.

Replaced Aircraft Warning Lights as required.

AIR RAID WARNING SYSTEM

Tested, maintained and repaired the City's Air Raid Siren System.

Replaced one complete Siren at 30th & Noe Sts. [School].

Installed one Siren & Cabinet [pole mounted] at 47th & Pacheco.

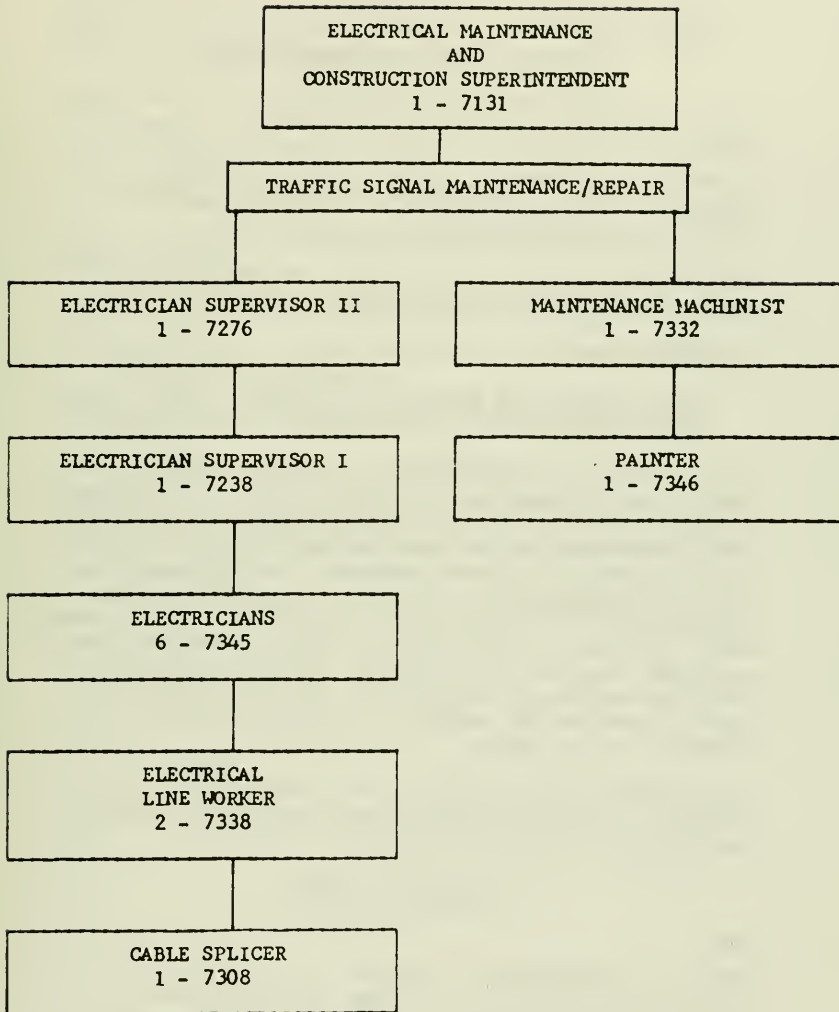
Replaced Cabinets at three [3] locations.

Checked plans submitted by other City Departments, Utility Companies, Developers, Street Improvement Contracts and various other agencies.

Marked underground conduits & ducts as required.

Estimated costs and submitted plans to Auxiliary Fire Alarm Companies for connection to the Municipal System.

CHART B



PROGRAM

TRAFFIC SIGNAL MAINTENANCE/REPAIR

GOAL:

To effectively maintain traffic signals along with associated underground cables on a 24-hour basis in order to provide for efficient traffic flow.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Activities are:

To provide field service, installation, shop repair and overhaul of 934 intersections of traffic signals.

This program is funded from gas tax revenue via a Work Order from the Department of Public Works. Due to decreases in gas tax revenues over the past several years, funding for this program has not kept pace with increases in the cost of materials or wage increases. The end result being that the Traffic Shop is continuing to operate with a reduced staff. Priorities were established to make better use of personnel capabilities. Prime emphasis was placed on prompt response to complaints. Prompt response and more importantly, prompt repairs reduces the length of time an intersection remains in a condition which can be hazardous to the public.

Prime emphasis was placed on prompt response to citizen complaints, and this objective was achieved in spite of staffing and workload problems.

PROGRAM OBJECTIVES

QFA

Number of intersections relamped.
Objective achieved [842] was over the goal of 740.
Overachievement was due to a crash relamping program during the first quarter of FY 82/83. This program was instituted to bring the relamping sequence to a more normal relamping schedule based on the life span of a traffic signal lamp.

QFB

% of complaints responded to in 1 hour.
Objective achieved [95.78%]. Goal of 95% was met.

QFC

Number of dispatchers/controllers overhauled or serviced.
Objective achieved [489] was above goal of 400.

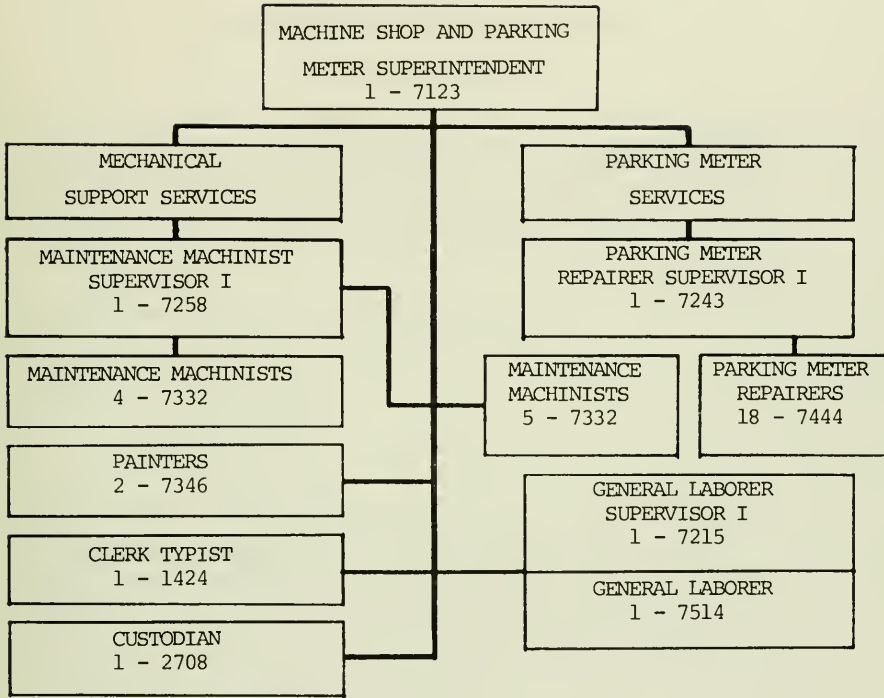
In addition to the Program Objectives, other activities carried out by personnel in the Traffic Signal Program were:

Responded to 2005 complaints on a 24-hour basis.
Made repairs to damaged equipment at 132 locations.
Made repairs to damaged conduits, and replaced wiring at 27 locations.
Replaced signal heads at 144 locations.

Made relocations, installations and modifications under Special Jobs at:

- [1] Market & Powell Sts.-Installed 12in. adaptors [E] & [W].
- [2] Brotherhood & Thomas More Sts.-Installed four 12in. adaptors NW & SE corners.
- [3] Third St & Howard-Installed temporary signal on SE corner.
- [4] Third St & Le Conte-Installed flashing beacon.
- [5] Market St.-Relamping high mast arm signals.
- [6] Army & Evans Sts.-Building and installing signals with 12in. arrows.
- [7] Third St. & China Basin-Installing new cabinet.

MECHANICAL DIVISION
FISCAL YEAR 1982/83



ALLOCATION OF PERSONNEL IN SUPPORT OF VARIOUS PROGRAMS

	<u>PUBLIC SAFETY</u>	<u>PARKING METERS</u>	<u>TRAFFIC</u>	<u>ADMIN.</u>
M.S. AND P.M. SUPT.				1
MAINT. MACH. SUPV. I				1
P.M. REPAIRER SUPV. I		1		
GEN. LABORER SUPV. I		1		
MAINT. MACHINISTS	2	5	1	1
P.M. REPAIRERS		18		
PAINTERS	1		1	
GENERAL LABORERS		1		
CUSTODIAN				1
CLERK TYPIST				1

MECHANICAL DIVISION
MANUFACTURE, MAINTENANCE AND REPAIR

FOR FISCAL 1982/83

The Mechanical Division under the direction of the Machine Shop and Parking Meter Superintendent has full responsibility for the Parking Meter program and is a support service for the Departments' other programs and functions, which includes the maintenance, repair and manufacturing of all mechanical equipment under the jurisdiction of the Department of Electricity.

The equipment includes the following:

2039 - Fire Alarm Boxes

468 - Police Call Boxes

79 - Desk Set Phones

934 - Traffic Signal Intersections

All mechanical equipment at the Central Fire Alarm Station, Central Radio Station, Hall of Justice Communications Room, and the Plant at 901 Rankin St., including five [5] emergency gas and diesel driven generators.*

* Generators at Central Fire Alarm Station [2], Central Radio Station [2] and McLaren Park. [1]

16,049 - Parking Meters

40 - Emergency Warning Sirens

56 - pieces of gas driven equipment, 49 mobile and 7 stationary. The major repairs and servicing of the above equipment were done at the Purchasing Shops.

The maintenance of three [3] Departmental Buildings; the Plant at 901 Rankin St., Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through Contractual services.

MECHANICAL DIVISION

FISCAL 1982/83

The following mechanical services were performed in support of the public safety, traffic signal, radio and administration programs:

Manufactured

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete Fire Alarm Boxes in the new Underground Districts. New and replacement parts for Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens and Instruments were manufactured in the Machine Shop as needed.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

Maintenance and Repair

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the public.

Painting

Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the shop and field. Due to a shortage of personnel, we are on a four [4] to five [5] year painting cycle, rather than a two [2] year cycle recommended for some of the above equipment.

Other Duties

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all Mechanical equipment were kept.

MECHANICAL DIVISION

SUMMARY OF ACTIVITIES

FISCAL 1982/83

	<u>Total Numbers</u>
Manufactured Fire Alarm Boxes, parts and related equipment.	855
Repaired Fire Alarm Boxes, parts and related equipment.	2165
Manufactured Police Call Boxes and related equipment.	925
Repaired Police Telephones and related Communications equipment.	82
Manufactured Traffic Signal Parts and Special Tools.	343
Repaired Traffic Signals, parts and related equipment.	789
Manufactured and repaired miscellaneous Air Raid Siren parts and related equipment.	001
Manufactured and repaired miscellaneous Radio equipment items, also communications at the Hall of Justice.	209
Miscellaneous items manufactured and repaired for Plant and vehicular equipment.	784
Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	170
All registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk St. [plus related equipment].	1416
Emergency Generators serviced and tested at Central Radio Station and McLaren Park. [plus related equipment].	95

MECHANICAL DIVISION

PAINTING

FIELD AND SHOP

FISCAL 1982/83

The following items have been hand prepared or sandblasted, primed and finish coated:

FIRE ALARM SYSTEM

	<u>Total Numbers</u>
Fire Alarm Boxes-Field and Shop.	391
Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc.-Field & Shop.	678

POLICE COMMUNICATIONS

Police Call Boxes-Field & Shop	99
Miscellaneous items-Shop	19

TRAFFIC SIGNALS

Vehicular Signals-Field & Shop	754
Signal Controllers-Field & Shop	94
Walk-Wait Pedestrian Signals-Field & Shop	93
Signal Posts, Poles, etc.-Field & Shop	850
Traffic Signal Visors & Louvers-Field & Shop	29

MISCELLANEOUS

Cabinets, Siren Parts, Ladders [oiled-shellacked] Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, touch up, etc.	48
Painting at the Plant at 901 Rankin St. at the Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks.	002

MECHANICAL DIVISION

PARKING METER PROGRAM

FISCAL 1982/83

GOAL:

To effectively maintain and repair Parking Meters in order to maximize revenues.

PROGRAM OBJECTIVES

To insure effective field service and inspection to 77% of the City's 16,000 + Parking Meters daily.

To insure accuracy, dependability and increase years of service by performing a complete overhaul in the shop to 40% of the Parking Meter mechanisms, annually.

To complete 70% of the Parking Meter post damages, repairs and installations daily.

PROGRAM OUTPUT

	<u>1981/82</u>	<u>1982/83</u>
% of meters serviced daily	73%	75%
% of meters overhauled	27%	40%
% of meter posts installed daily	64%	70%

Within allowable tolerances all objectives were achieved.

Also all of the 15 minute meters have been eliminated by converting them to 30 minutes or more.

Revenue from Parking Meters for the Fiscal Year 1982/83 was \$6,453,046.00 which was an increase of \$229,424.00 over the prior fiscal year.

MECHANICAL DIVISION

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

FISCAL YEAR 1982/83

NATURE OF TROUBLE

#7444 - PARKING METER REPAIRER

Jammed Intentionally.....	184,390
Cases Cleaned.....	12,677
Damaged Meters Removed.....	110
Exchange Heads.....	528
Exchange Mechanisms.....	4,328
Exchange Mechanisms for Cleaning..	4,579
Exchange Timers.....	329
Hoods Removed.....	28,648
Lock Open Coin Doors.....	12
Tighten Heads.....	692
Tighten Mechanisms.....	21
Mechanical Adjustment Mechanisms..	29,119
Mechanical Adjustment Cases.....	6,364
Meters Installed.....	666
Meters Replaced.....	708
Meters Removed from Service.....	693
Temporarily out of Service.....	151
O.K. Requested Inspections.....	6,344
Replace Coin Glass.....	876
Replace Coin Lock.....	7
Replace Parts to Cases.....	7,410
Replace Parts to Mechanisms.....	5,721
Replace Signal Glass.....	166
Stuck Coins.....	17,290
Service Coin Door.....	54
Service Coin Lock.....	400
Stuck Indicators.....	1,213
Stuck Signals.....	2,773
Stuck Timers.....	4,288
Unwound Main Springs.....	6,739
Winding Hole Plugged.....	31
Replace Missing Coin Can.....	81
Exchange Defective Coin Can.....	252

WORK ON POSTS:

#7444 P.M. REPAIRER

Straightened..... 1167

#7332 MAINT. MACH.

Weld Posts in Field... 14

#7514 LABORER

Straightened..... 1056

Removed..... 171

Relocated..... 36

Installed..... 761

Replaced..... 411

Reset..... 700

TOTAL..... 4306

TELEPHONE COMPLAINTS

S.F.P.D. 1277

327,661

#7332 MAINTENANCE MACHINIST

Timers Rebuilt.....	108
Mechanisms Cleaned & Overhauled..	10,860
Shop Repairs on Cases.....	1,165
Exchange Mechanisms.....	1,165
Prepare Cases [New Meters].....	2,106
Repair Cases in Field.....	194
Repair Collection Equipment.....	50

Minor Meter Repairs.. 349

15,997

#7346 PAINTER

Meters Painted..... 425 425

4,306

TOTAL..... 348,349

INVENTORY OF PARKING METERS

AS OF JUNE 30, 1983

<u>District</u>	<u>Number</u>	<u>Number in Off-Street Parking Lots</u>
A	<u>1,085</u>	<u>69</u>
B	<u>942</u>	<u>119</u>
C	<u>789</u>	<u>—</u>
D	<u>909</u>	<u>40</u>
E	<u>764</u>	<u>—</u>
F	<u>1,054</u>	<u>—</u>
G	<u>861</u>	<u>—</u>
H	<u>880</u>	<u>—</u>
I	<u>626</u>	<u>—</u>
J	<u>793</u>	<u>—</u>
K	<u>1,037</u>	<u>—</u>
L	<u>580</u>	<u>31</u>
M	<u>839</u>	<u>—</u>
N	<u>926</u>	<u>—</u>
O	<u>611</u>	<u>73</u>
P	<u>710</u>	<u>20</u>
R	<u>639</u>	<u>72</u>
S	<u>849</u>	<u>35</u>
T	<u>677</u>	<u>39</u>
TOTAL	<u>15,551</u>	<u>498</u>
GRAND TOTAL	-----	<u>16,049</u>

DEPARTMENT OF ELECTRICITY

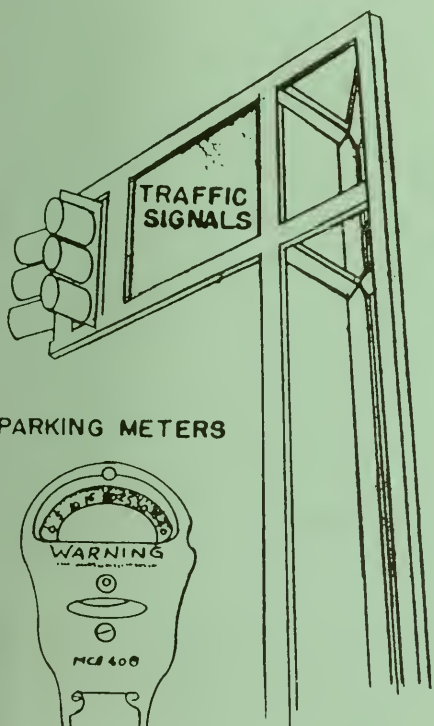
RADIO COMMUNICATIONS

DOCUMENTS DEPT.

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ANNUAL REPORT ENDING JUNE 30, 1984



ANNUAL REPORT
DEPARTMENT OF ELECTRICITY
CITY AND COUNTY OF SAN FRANCISCO

FISCAL YEAR 1983 - 1984

HON. DIANNE FEINSTEIN

MAYOR

ROGER BOAS

CHIEF ADMINISTRATIVE OFFICER

JULES T. BECKLEY

GENERAL MANAGER



Mr. Roger Boas
Chief Administrative Officer
Room 289-City Hall
San Francisco, California

Dear Mr. Boas:

In accordance with the provisions of Section 3.501 of the Charter of the City and County of San Francisco, I am pleased to submit the Annual Report of the Department of Electricity for Fiscal Year 1983/84.

The Department continues to fulfill its responsibilities and performs its functions through organization into four divisions: Administration, Electrical, Mechanical and Radio.

This report reflects the Department's goals, performance objectives, and measures for the 1983-1984 Fiscal Year.

The cost of operating the Department of Electricity during Fiscal Year 1983/84 was \$4,724,233 or 13.89% greater than for the prior Fiscal Year.

I sincerely appreciate the help and understanding extended by you and your staff during this past year.

Respectfully submitted,



JULES T. BECKLEY
General Manager
Department of Electricity

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PARKING METERS AND MECHANICAL SERVICES	19 - 26

ADMINISTRATION

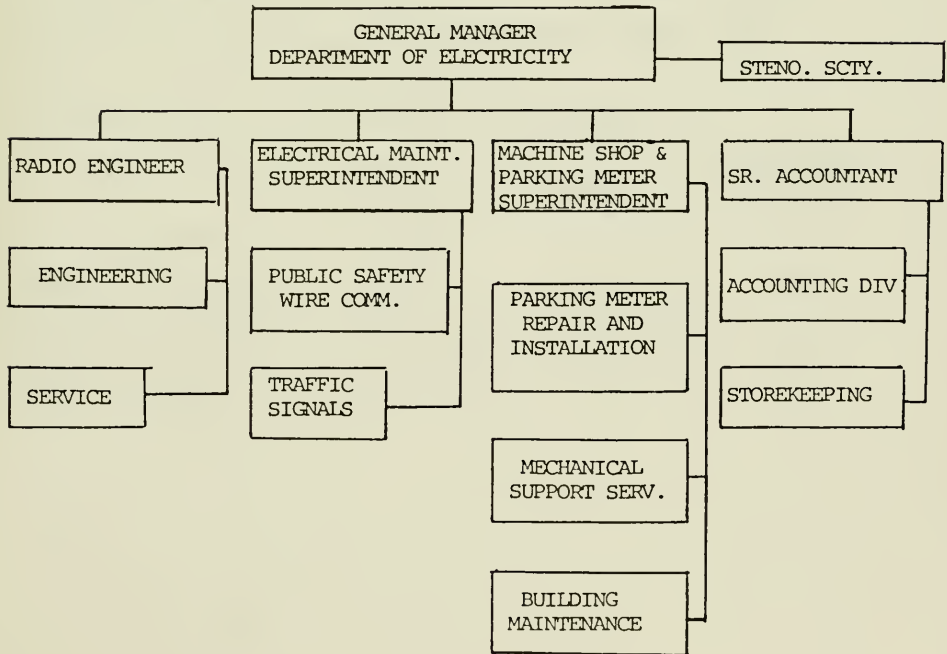
The Department of Electricity is a General Service Department whose main function is to provide service in the areas of:

- Parking Meters
- Traffic Signals
- Radio Communications
- Wire Lines/Teletype Communications
- Fire Alarm Box Systems/Dispatch and Command & Control Functions
- Overhead and Underground Wire and Cable Systems
- Air Raid Siren Systems
- Operation of Fire Department Switchboard
- Other Ancillary Support Functions

Effective management and coordination is provided by the General Manager and a Division Head in charge of each program.

Major Programs are:

- [a] Administration/Management & Departmental Support Services
- [b] Parking Meter Maintenance & Repair
- [c] Public Safety Wire Communications
- [d] Radio Communications
- [e] Traffic Signal Maintenance/Repair



ACCOUNTING)ADMINISTRATION)

The Senior Accountant, under the direction of the General Manager, is responsible for the Accounting [Administration] Division. The Division consists of five Department personnel and one Storekeeper, Work Ordered from the Purchasing Department. In addition to the Accounting functions, the Division is also responsible for certain administrative tasks, such as, typing pool services and keeping records of Parking Meter Maintenance.

The personnel are as follows:

- 1 - 1652 Senior Accountant
- 1 - 1650 Accountant
- 1 - 1632 Senior Account Clerk
- 1 - 1934 Storekeeper
- 2 - 1424 Clerk Typists

For functional use, the Division maintains an orderly system of tracking and recording expenditures and revenues which are compiled and reported to management on a timely periodic basis.

For cost control of labor, material, services, and equipment, the Division maintains approximately seventy cost accounts, as well as accounting control of individual budgetary line items. During the Fiscal Year 1983-1984, the Division has processed 220 Work Orders, Special Jobs and projects, an increase of 20% as compared with Fiscal Year 1982/83.

In Fiscal Year 1983/84, 166 individual billings in the amount of \$146,174.00 were made for Special Jobs and claims for damages to City property.

Comparison with previous years is as follows:

	<u>1983/84</u>	<u>1982/83</u>	<u>% Increase [Decrease]</u>
No. of Billings	166	148	12.16
Amount of Billings	\$146,174	\$154,723.64	[5.52]
Damages - Billings	\$ 81,148.00	\$ 84,422.69	[3.87]
Other Billings	\$ 65,026.00	\$ 70,300.95	[7.50]

ACCOUNTING (ADMINISTRATION)
ESTIMATED AND COMPARATIVE REVENUE

	Estimated Revenue <u>1983/84</u>	Actual Revenue Collected <u>1983/84</u>	<u>1982/83</u>	% Increase <u>[Decrease]</u>
Damage Claims Traffic Signals [Note A]	\$37,000.00	\$26,314	\$38,360.24	[31.40]
Damage Claims Parking Meters [Note A]	4,000.00	6,818	4,916.05	38.69
Damage Claims Police & Fire Alarm Facilities [Note A]	3,000.00	3,874	2,257.87	71.57
Electrical Inspection [Note B]	1,800.00	2,023	1,815.00	11.46
Housemoving Electrical Work	<u>35.00</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
TOTALS	\$45,835.00	\$39,029	\$47,349.16	

COMMENTS

The decrease of actual revenue collected in Fiscal Year 1983-1984 as compared with Fiscal Year 1982-1983 is mainly due to the decline of claims for Traffic Signal damages. Actual revenues were collected by the Department and by the Bureau of Delinquent Revenue under the Tax Collector's Office.

NOTES

- [A] Recovery of damages is deposited to the General Fund.
- [B] Collections represent actual cost for each inspection of overhead line wires.

ADMINISTRATION AND SUPPORT

PROGRAM OBJECTIVE

ACTUAL PERFORMANCE

To accomplish 80% of the
Department objectives.

87%

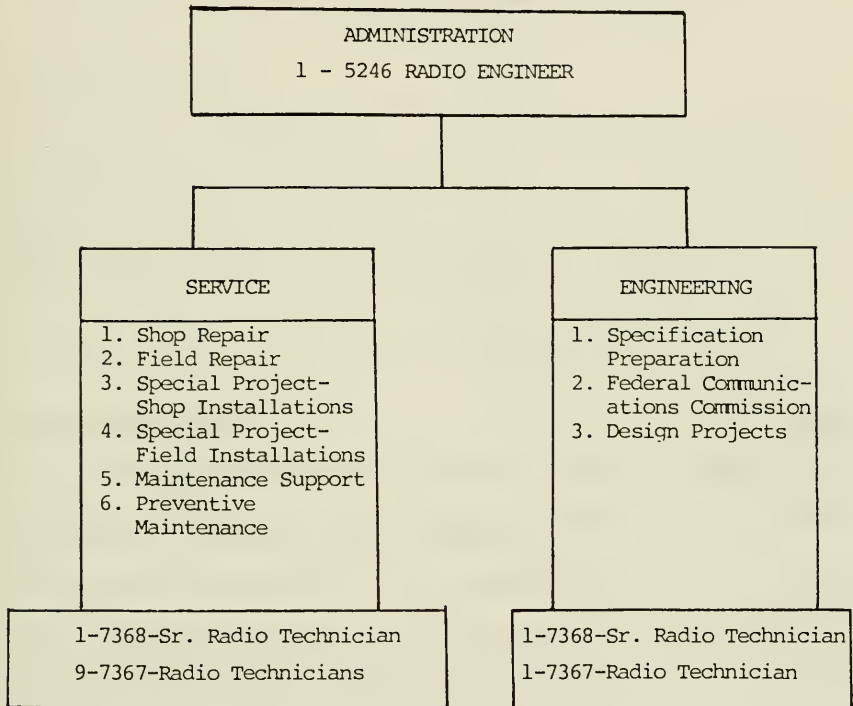
To effectively collect 40% of
all damage claims involving
Traffic Signals, Parking Meters
and Police & Fire Alarm
facilities.

52.5%

To effectively provide 75% of
requested monthly repairs in
support of all programs
including buildings, facilities
and automobiles.

75%

RADIO-ELECTRONIC COMMUNICATIONS SERVICES PROGRAM



RADIO ELECTRONIC

COMMUNICATIONS SERVICES PROGRAM

PROGRAM GOAL:

TO EFFECTIVELY CONSULT, PLAN, DESIGN, MANAGE AND SERVICE RADIO ELECTRONIC COMMUNICATIONS SYSTEMS FOR VARIOUS DEPARTMENTS OF THE CITY & COUNTY OF SAN FRANCISCO.

PROGRAM OBJECTIVES:

- To complete the design of 60% of the Engineering Projects within schedule and budget.
- To complete preventive maintenance of 60% of fixed Radio/Electronic Equipment annually.
- To keep an average of 90% of all Portable and Mobile Radio/Electronic units operational.
- To restore to service 80% of the fixed Radio/Electronic equipment within 4 hours of reported failure.

PROGRAM PERFORMANCE:

83/84

- | | |
|--------------------------------------------------------------------------------------------|--------|
| - Engineering design projects completed within schedule | 77.45% |
| - Fixed Radio/Electronic Equipment preventive maintenance completed within schedule. | 40.81% |
| - Portable Radio/Electronic units operational. | 98.93% |
| - Mobile Radio/Electronic units operational. | 99.43% |
| - Fixed Radio/Electronic equipment restored to service within 4 hours of reported failure. | 98.10% |

All program objective targets have been met or exceeded this year with the exception of the preventive maintenance target. This target was not met due to an excessive project workload, and also, the need for additional personnel.

RADIO ELECTRONIC COMMUNICATIONS SERVICES PROGRAM ACTIVITIES

Radio Engineering and Servicing are the two major functions of the Radio Electronic Communications Services Program.

General responsibilities are to consult, plan, design, manage and service the Radio Electronics Communications Systems for the various Departments of the City and County of San Francisco.

This Division provides expertise and services through estimates, specifications, equipment procurement, F.C.C. licensing, installation, inspection, maintenance, repair and service of any City Radio Electronics Communications System. This work is done in conformance with Federal Communications Commission Rules & REgulations and Industry Standards. Special electronics projects, funded by inter-departmental Work Orders, are also part of this Divisions responsibility.

SERVICING:

1- Shop repair activity:

Services malfunctioning Portable and Mobile Radio Electronic Units and vehicular Radio Electronic Systems brought into the Shop from operational systems:

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] Vehicle Systems Serviced	1908	3160
[B] Portable & Mobile Units Serviced	3498	2922

2- Field repair activity:

Maintains fixed field Radio & Electronics Equipment at various locations throughout the City.

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] Fixed units serviced	2201	2828

3- Special Projects:

Shop installation activity:

Performs installation of new and renovated Mobile Radio Electronic Equipment. Inspects new Portable & Mobile Radio Electronic Equipment before operational use.

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] Mobile Units installed	301	413
[B] Mobile Units removed	243	232
[C] New Portable/Mobile Units inspected [acceptance checks]	209	403

4- Special Projects:

Field installation activity:

Pre-tests, inspects, installs, adjusts & accepts new fixed Radio Electronic Equipment and Systems at various field locations throughout the City.

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] New fixed equipment pre-tested & inspected [acceptance checks]	36	28
[B] New fixed equipment/systems installation, adjustment & acceptance. [non recurring projects completed]	8	7

5- Maintenance support activity:

Service record data is kept for all Portable, Mobile & fixed equipment systems. Stock records & levels are kept to assure availability of necessary items to support the maintenance & repair of all fixed, Mobile and Portable Radio Electronic Equipment. Calibration records are kept for all fixed, Mobile & Portable equipment.

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] Service Order Record Data	8338	8932
[B] Support Requisitions	425	390
[C] F.C.C. Calibrations	3334	2644

6- Preventive Maintenance:

Preventive maintenance is performed on all fixed Radio & Electronic Equipment on a regular basis.

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] Preventive maintenance of fixed units	2299	2195

ENGINEERING

[1] Engineering specification preparation activity:

Develops written specifications that identifies parameters of equipment needed to meet communications requirements. Prepares cost estimates for system design projects and equipment procurement. Performs preliminary studies and field surveys prior to development of specifications.

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] Specifications	57	70
[B] Estimates	116	141

[2] F.C.C. licensing activity:

Applies to the Federal Communications Commission for authority to install and operate fixed and Mobile Radio Equipment. Obtains coordination and approval of area communications Agencies. Reviews and modifies licenses as required.

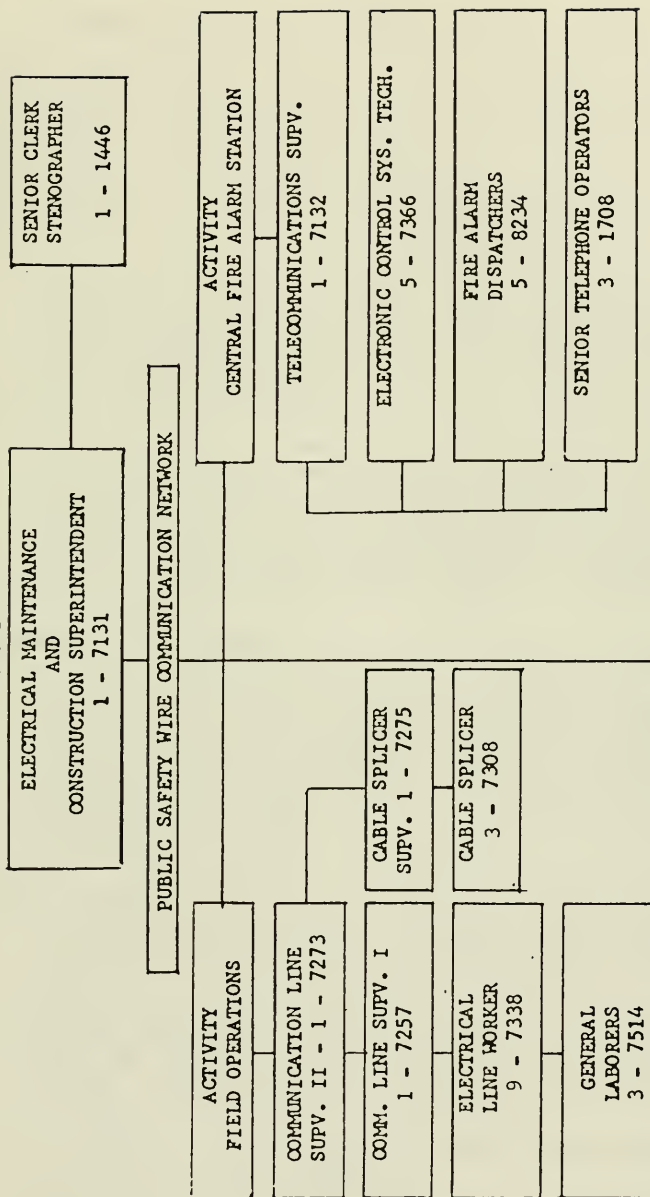
<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] F.C.C. applications	42	51
[B] F.C.C. coordinations	52	42
[C] F.C.C. renewals	142	84

[3] Engineering design projects activity:

Consults, plans, designs, implements and manages various new projects for the changing needs of City Departments.

<u>Program Output:</u>	<u>82/83</u>	<u>83/84</u>
[A] Projects	7	10

CHART A



MAINT. MACHINIST
2 - 7332

PAINTER
1 - 7346

PROGRAM

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

GOAL: To effectively maintain Public Safety Wire Line Circuits in order to provide timely fire protection, Police and emergency responses in compliance with requirements of National Fire Protection Association regarding maintenance and testing.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Operation and maintenance of the Central Fire Alarm Station on a 24-hour basis. This activity includes maintenance and service of the computer-assisted Fire Alarm Dispatch System with teletype and voice announce Consoles in 44 Fire Stations and associated agencies of the Fire Department.

Operation and maintenance of the City's Fire and Police Non-Radio Communication Systems. This activity consists of maintenance of the Fire Box Alarm System, Police Call-box System, Police Private Telephone System, Mayor's Emergency Telephone System, Air Raid Siren System along with the related Overhead Line and Underground Cable System.

Management Data System:

This Data System is interfaced with the Computer main frame at the Central Fire Alarm Station using Department Cable pairs to Fire Department Headquarters. CRT data terminals and line printers are used by various bureaus of the Fire Department Administrative Headquarters to send, store or retrieve data from the Computer Main Frame.

Personnel assigned to this program are: [See Chart A]

Central Fire Alarm Station activities include the following:

24-hour operation of the telephone switchboard which provides service to all units and bureaus of the Fire Department and the Department of Electricity

Monitors Fire Box Alarm Panels connected to all street Fire Alarm Boxes. Alarms received are transmitted thru the Computer which provides the Fire Department Bureau of Communications Assignment Officer with a recommended assignment for dispatch.

Monitors hot lines and registers from private Central Office Fire Alarm Companies.

Tests 47 circuits connected to the Air Raid Siren Warning System daily. Tests Sirens on a weekly basis to insure satisfactory operation.[continued]

Central Fire Alarm Station activities [continued]

Conducts scheduled tests of Fire Alarm Box circuits, dispatch circuits and emergency power equipment.

Coordinate test and repair activities with field personnel.

Field operation activities consist of the following:

Repair and maintenance of the City's Fire Alarm Box System along with the System's related overhead and underground circuits.

Repair and maintenance of the Police ring-in Telephone System along with the System's related wiring.

Routine replacing of overhead lines and underground Cables on an as needed basis.

Testing of the City's Fire Alarm Box System, Auxiliary Fire Alarm Systems connected to 130 Public Schools and supervision of auxiliary connections from various public buildings.

Expansion of the Mayor's Emergency Telephone System.

Added BART Central Control, Muni Control Center, Radio Station KALW, D.P.W. Operation Center, and the P. G. & E. Emergency Center.

To provide connections for the duration of the Democratic National Convention, temporary lines were connected at the Police Command Center at Third and Howard Streets, and a circuit was installed for the Office of Emergency Services Communication Van at the Staging Area on Pier "50".

This operation also has personnel in the field on a 24-hour basis to respond to complaints on Fire Alarm Boxes, Fire Station equipment, Police telephones, Traffic Signals or any other complaint involving City property. This trouble shooting detail is available for immediate response to most emergency situations throughout the City.

PROGRAM OBJECTIVES

QCA

% of Central Fire Alarm complaints responded to in 1 hour. Objective achieved [100%] was slightly above the goal of 95%.

QCB

% of Fire House complaints responded to in 1 hour. Objective achieved [96.5%]. Goal of 95% was met.

QCC

Reliability of Fire Alarm Boxes.
Objective achieved [99.2%] goal of 99% was met.

QCD

Testing of Fire Alarm Boxes.

Objective achieved [11,883] was below the annual goal of 12,000. Underachievement was due to extreme adverse weather conditions and the Departments involvement in two projects: the Cable Car Rehabilitation Program and the Democratic National Convention.

QCE

Reliability of Central Ring-in System.

Objective achieved [89%]. Goal of 99% was not met for the same reasons as listed above.

Most of the Department's Public Safety Program Goals were met during FY 1983/84 despite severe weather conditions. Storms during this Fiscal Year again caused heavy damage to both our overhead and underground facilities. For two consecutive years, personnel within the Public Safety Program worked under very adverse and hazardous conditions to maintain the reliability of the Department's facilities.

CENTRAL FIRE ALARM STATION

In addition to the Program Objectives, other activities carried out by personnel at the Central Fire Alarm Station are:

24-hour Radio contact with field personnel for immediate response to emergencies.

Summary of complaints received by personnel during FY 1983/84:

Fire Alarm Circuits	566
Fire Alarm Boxes	123
Police Call Box & Locals	83
Fire Station Line trouble	96
* SA/TPE Fire Stn. equipment	396
** SA/TPE - CFAS	113
* Teletype & Voice Announce Consoles in Fire Stations.	
** Command & Control equipment - CFAS	

In addition to the Program Objectives, other activities carried out by personnel in the Public Safety Program, field operations were:

FIRE ALARM & POLICE MAINTENANCE

Install 5 new Fire Alarm Boxes
Relocate 4 Fire Alarm Boxes
Remove 1 Fire Alarm Box from service
Repaired 78 Fire Alarm Box Movements in the Shop
Repaired 73 Fire Alarm Boxes in the field
Made repairs to damaged Fire Alarm Boxes at 32 locations.

[continued]

FIRE ALARM & POLICE MAINTENANCE [cont'd.]

Made repairs or replaced Fire Alarm Box Standards
on routine at 50 locations
Tested 12,417 Fire Alarm Boxes in the field
Tested 1,169 School Fire Alarm Boxes in the field
Responded to 50 complaints on Auxiliary Fire
Alarm Systems in Schools
Repaired 17 Police Boxes in the Shop
Repaired 23 Police Boxes in the field
Removed 1 Police Box from service
Checked and repaired if needed 471 Police
Call Boxes

FIRE HOUSE MAINTENANCE:

Responded to 8 Fire House Station complaints

TRAFFIC DAMAGE & ROUTINE MAINTENANCE:

Assisted the Traffic Division in the field at
142 locations.

OVERHEAD LINES & UNDERGROUND CABLES:

The Cable Car rehabilitation program provided the Department with an opportunity to replace existing deteriorated Duct Structures and Cables from Market St. to Bush-Powell, some 2,000 feet. A new Cable and Duct run was installed on Jackson St., Hyde to Mason a distance of some 2,400 feet to provide a better distribution of existing Fire Alarm Cables.

The Democratic National Convention put some strain on our manpower resources, but a new Cable was installed from the Hall of Justice to the Moscone Center and Police Command Post at Third and Howard, some 5,600 feet. This provided wire lines for the Radio Transmission, Teletypes and voice communications, thus saving thousands of dollars. A connection to the METS System was also provided for the Office of Emergency Services, as well as a terminal at "Pier 50", the Police Staging Area.

Transferred facilities to new PG&E Poles at 42 locations
Replaced crossarms at 52 locations
Replaced 2,500ft. of overhead line wire
Installed 2,500ft. overhead line wire on a San Francisco Fire Department request for connection for Fire Alarm Box [Wisconsin Federal Project]
Performed routine maintenance to overhead lines at 230 locations
Replaced defective Cables or installed Cables in new areas [27,902 feet of various size Cable]
Spliced and cut over underground Cables at 168 Locations
Installed 300 feet of various size Conduit in City Streets
Cleared trouble on Fire Alarm Circuits at 336 locations
Cleared trouble on Command & Control Circuits at 82 locations
Splicers tested for underground trouble at 326 locations
[continued]

OVERHEAD LINES & UNDERGROUND CABLES [cont'd]

Underground Cable damaged by third parties at 10 locations
Install 2,500ft of Vidio Cable for DPW Camera
installation at the Third Street Bridge
Installed tempory lines for Radio Communications
[6,000 feet, 25 pairs]
Installed Cable from the Fire House at Third and Howard
to the Moscone Center

AIR RAID SIREN SYSTEM:

Test and maintain the City's Air Raid Siren System
Complete new Siren installation in Lafayette Park
[Clay & Laguna]
Complete new Siren installation at Fire Station 5
[Turk & Webster]
Completed 50% of new Siren installation at Fire
Station 6 at 135 Sanchez
Replace Siren Motor at the Federal Building
Replaced Siren Cabinets at three locations

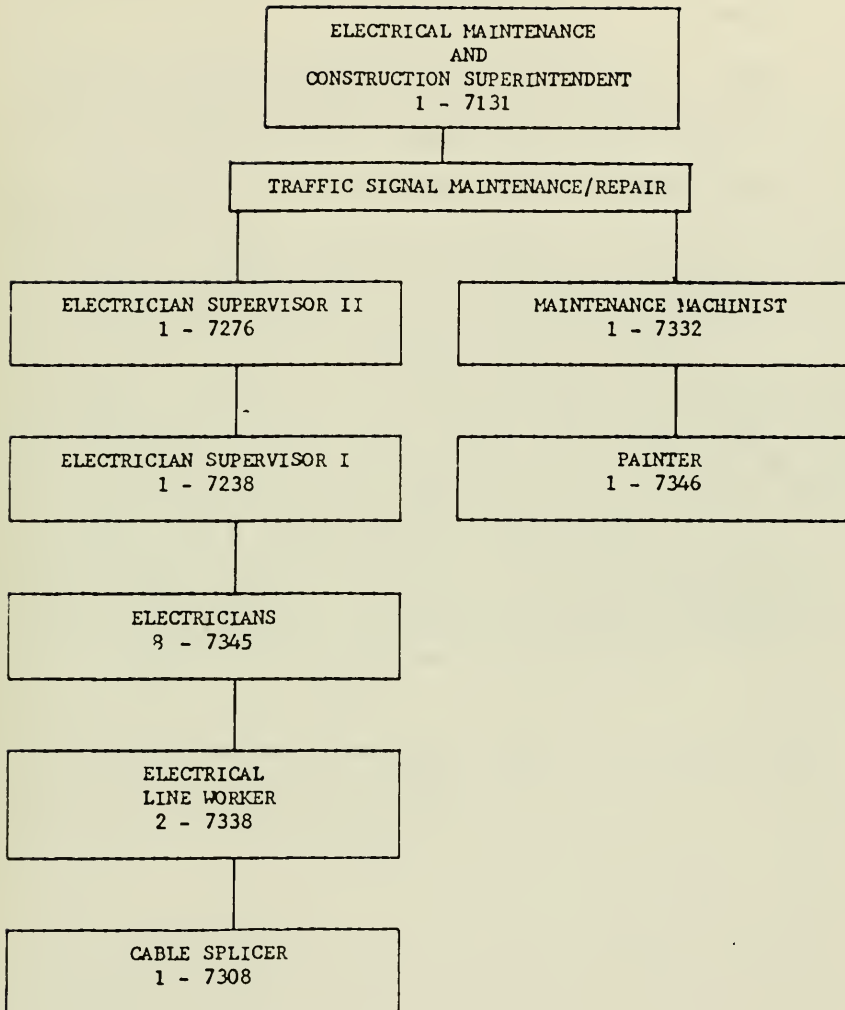
The following Work Order Projects were worked on:

W.O. #30011 - Marina and Bay [Sewer Monitor]
W.O. #41182 - Lafayette Park [install Conduit &
Cable for DPW to underground service
and Street Lights
W.O. #40490 - Air Raid Sirens
W.O. #40778 - Third St. Camera Monitor for DPW
W.O. #30383 - Air Raid Sirens
W.O. #31036 - Telegraph Hill 1 & 2 undergrounding
W.O. #40558 - Sheriff's Dept. Phone replacement
6th & 7th floors at the Hall of Justice

The following Special Jobs were completed:

SJ #374 - LaPlaza/Balboa to Cabrillo, undergrounding
SJ #122 - School Department
SJ #362 - Relocate Fire Box at Sutter & Mason

CHART B



In addition to the Program Objectives, other activities carried out by personnel in the Traffic Signal Program were:

Responded to 2258 complaints on a 24-hour basis. Made repairs to damaged equipment at 155 locations. Made repairs to damaged Conduits, and replaced wiring at 41 locations. Replaced Signal Heads at 137 locations.

Made relocations, installations and modifications under Special Jobs at:

- [1] Battery & Jackson-installed Controller Cabinet.
- [2] Folsom & Fremont-installed new Controller Cabinet.
- [3] Sutter & Polk-installed new Controller Cabinet
- [4] 19th & Junipero Serra-installed new Controller Cabinet.
- [5] 36th Ave. & Geary-installed three way Signal.
- [6] Geneva & Hwy. 280-installed six 12in. Red Signals.
- [7] Gough at Golden Gate & McAllister-rerouted Master Conduit.
- [8] Portola & Alameda-installed new Signals NW corner.
- [9] Mission & Beale-installed flashing "Dont Walk Controller.
- [10] Lake Merced & Winston-installed new Signals NW & SW corners.
- [11] Columbus & North Point-relocated Conduits North & South.
- [12] Geary & Scott-installed 12in. Signal East Center Island.
- [13] Golden Gate & Hyde-installed Master Cable.
- [14] Montgomery & Clay-installed new Controller Cabinet.
- [15] 19th Ave. & Holloway-installed ICC pedestrian Signals.
- [16] 18th Ave. & Geary=replaced one way Signal with two way.
- [17] North Point & Mason-installed new Signal on SE Pole.
- [18] 5th St.N. & Ellis-installed Signals SW & SE.

Three [3] new Signals were put in service.

30th Ave. & Geary on December 29, 1983.

Ocean & Jules on March 14, 1984.

Washington & Hyde on June 8, 1984.

PROGRAM

TRAFFIC SIGNAL MAINTENANCE/REPAIR

GOAL:

To effectively maintain Traffic Signals along with associated underground Cables on a twenty four hour basis in order to provide for efficient traffic flow.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Activities are:

To provide field service, installation, Shop repair and overhaul of 937 intersections of Traffic Signals.

This program is funded from gas tax revenue via a Work Order from the Department of Public Works. Due to decreases in gas tax revenues over the past several years, funding for this program has not kept pace with increases in the cost of materials or wage increases. The end result being that the Traffic Shop is continuing to operate with a reduced staff. Priorities were established to make better use of personnel capabilities. Prime emphasis was placed on prompt response to complaints. Prompt response and more importantly, prompt repairs reduces the length of time an intersection remains in a condition which can be hazardous to the Public.

Prime emphasis was placed on prompt response to Citizen complaints, and this objective was achieved in spite of staffing and workload problems.

PROGRAM OBJECTIVES

QFA

Number of intersections relamped.

Objective achieved [948] was over the goal of 740.

Overachievement was due to a crash relamping program during the first quarter of FY 83/84. This program was instituted to bring the relamping sequence to a more normal relamping schedule based on the life span of a Traffic Signal Lamp.

QFB

% of complaints responded to in one hour.

Objective achieved [95%]. Goal of 95% was met.

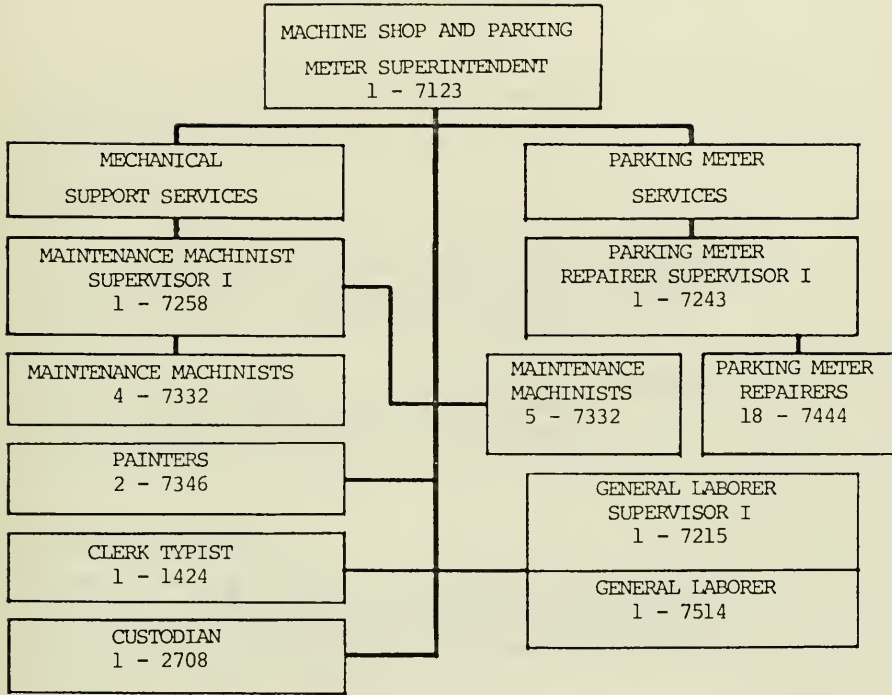
QFC

Number of Dispatchers/Controllers overhauled or serviced.

Objective achieved [460] was above goal of 400.

MECHANICAL DIVISION

FISCAL YEAR 1983/84



ALLOCATION OF PERSONNEL IN SUPPORT OF VARIOUS PROGRAMS

	<u>PUBLIC SAFETY</u>	<u>PARKING METERS</u>	<u>TRAFFIC</u>	<u>ADMIN.</u>
M.S. AND P.M. SUPT.				1
MAINT. MACH. SUPV. I				1
P.M. REPAIRER SUPV. I		1		
GEN. LABORER SUPV. I		1		
MAINT. MACHINISTS	2	5	1	1
P.M. REPAIRERS		18		
PAINTERS	1		1	
GENERAL LABORERS		1		
CUSTODIAN				1
CLERK TYPIST				1

MECHANICAL DIVISION

FISCAL 1983/84

The following mechanical services were performed in support of the Public Safety, Traffic Signal, Radio and Administration programs:

Manufactured

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete Fire Alarm Boxes in the new Underground Districts. New and replacement parts for Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens and Instruments were manufactured in the Machine Shop as needed.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

Maintenance and Repair

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the Public.

Painting

Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the Shop and field. Due to a shortage of personnel, we are on a four [4] to five [5] year painting cycle, rather than a two [2] year cycle recommended for some of the above equipment.

Other Duties

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all Mechanical equipment were kept.

MECHANICAL DIVISION
MANUFACTURE, MAINTENANCE AND REPAIR
FOR FISCAL 1983/84

The Mechanical Division under the direction of the Machine Shop and Parking Meter Superintendent has full responsibility for the Parking Meter program and is a support service for the Departments' other programs and functions, which includes the maintenance, repair and manufacturing of all mechanical equipment under the jurisdiction of the Department of Electricity.

The equipment includes the following:

- 2042 - Fire Alarm Boxes
- 471 - Police Call Boxes
- 79 - Desk Set Phones
- 941 - Traffic Signal Intersections

All mechanical equipment at the Central Fire Alarm Station, Central Radio Station, Hall of Justice Communications Room, and the Plant at 901 Rankin St., including five [5] emergency gas and diesel driven generators.*

* Generators at Central Fire Alarm Station [2], Central Radio Station [2] and McLaren Park. [1]

16,762 - Parking Meters

- 44 - Emergency Warning Sirens
- 57 - pieces of gas driven equipment, 50 mobile and 7 stationary. The major repairs and servicing of the above equipment were done at the Purchasing Shops.

The maintenance of three [3] Departmental Buildings; the Plant at 901 Rankin St., Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through Contractual services.

MECHANICAL DIVISION
SUMMARY OF ACTIVITIES
 FISCAL 1983/84

	<u>Total Numbers</u>
Manufactured Fire Alarm Boxes, parts and related equipment.	406
Repaired Fire Alarm Boxes, parts and related equipment.	788
Manufactured Police Call Boxes and related equipment.	402
Repaired Police Telephones and related Communications equipment.	79
Manufactured Traffic Signal Parts and Special Tools.	1225
Repaired Traffic Signals, parts and related equipment.	575
Manufactured and repaired miscellaneous Air Raid Siren parts and related equipment.	007
Manufactured and repaired miscellaneous Radio equipment items.	167
Miscellaneous items manufactured and repaired for Plant and vehicular equipment.	585
Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	364
All registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk St. [plus related equipment].	1523
Emergency Generators serviced and tested at Central Radio Station and McLaren Park. [plus related equipment].	127

MECHANICAL DIVISION

PAINTING

FIELD AND SHOP

FISCAL 1983/84

The following items have been hand prepared or sandblasted, primed and finish coated:

FIRE ALARM SYSTEM

	<u>Total Numbers</u>
Fire Alarm Boxes-Field and Shop	264
Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc.-Field & Shop	250

POLICE COMMUNICATIONS

Police Call Boxes-Field & Shop	105
Miscellaneous items-Shop	39

TRAFFIC SIGNALS

Vehicular Signals-Field & Shop	429
Signal Controllers-Field & Shop	78
Walk-Wait Pedestrian Signals-Field & Shop	51
Signal Posts, Poles, etc.-Field & Shop	156
Traffic Signal Visors & Louvers-Field & Shop	331

MISCELLANEOUS

Cabinets, Siren Parts, Ladders [oiled-shellacked] Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, touch up, etc.	65
Painting at the Plant at 901 Rankin St. at the Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks.	001

MECHANICAL DIVISION
PARKING METER PROGRAM
FISCAL 1983/84

GOAL:

To effectively maintain and repair Parking Meters in order to maximize revenues.

PROGRAM OBJECTIVES

To insure effective field service and inspection to 77% of the City's 16,700+ Parking Meters daily.

To insure accuracy, dependability and increase years of service by performing a complete overhaul in the Shop to 40% of the Parking Meter mechanisms, annually.

To complete 70% of the Parking Meter Post damages, repairs and installations daily.

PROGRAM OUTPUT

	<u>1982/83</u>	<u>1983/84</u>
% of Meters serviced daily	75%	74%
% of Meters overhauled	40%	40%
% of Meter Posts installed daily	70%	70%

Within allowable tolerances all objectives were achieved.

Completed the elimination of all fifteen minute Meters in the City which were replaced with thirty minute Meters.

This year the number of Meters were increased by 713, of which 465 are in off-street Parking Lots.

Revenue from Parking Meters for the Fiscal Year 1983/84 was \$6,377,896.00, which was a decrease of \$75,150.00 over the prior Fiscal Year. This was due to Parking Meters being temporarily "out-of-service" while construction was going on in a couple of major Parking Lots and on the streets.

MECHANICAL DIVISION

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

FISCAL YEAR 1983/84

NATURE OF TROUBLE

#7444 - PARKING METER REPAIRER

Jammed Intentionally.....	194,649
Cases Cleaned.....	11,433
Damaged Meters Removed.....	107
Exchange Heads.....	32
Exchange Mechanisms.....	3,156
Exchange Mechanisms for Cleaning.	1,381
Exchange Timers.....	379
Hoods Removed.....	30,722
Lock Open Coin Doors.....	2
Tighten Heads.....	935
Tighten Mechanisms.....	31
Mechanical Adjustment Mechanisms.	32,393
Mechanical Adjustment Cases.....	8,410
Meters Installed.....	883
Meters Replaced.....	961
Meters Removed from Service.....	269
Temporarily out of Service.....	325
O.K. Requested Inspections.....	7,155
Replace Coin Glass.....	952
Replace Coin Lock.....	9
Replace Parts to Cases.....	9,237
Replace Parts to Mechanisms.....	6,830
Replace Signal Glass.....	70
Stuck Coins.....	20,742
Service Coin Door.....	184
Stuck Indicators.....	1,554
Stuck Signals.....	3,523
Stuck Timers.....	3,896
Unwound Main Springs.....	8,258
Winding Hole Plugged.....	41
Replace Missing Coin Can.....	34
Exchange Defective Coin Can.....	392

WORK ON POSTS:

#7444 P.M. REPAIRER

Straightened..... 1,274

#7514 LABORER

Straightened..... 1,236

Removed..... 51

Relocated..... 40

Installed..... 601

Replaced..... 423

Reset..... 664

TOTAL 4,289

350,112

#7332 MAINTENANCE MACHINIST

Timers Rebuilt.....	46	
Mechanisms Cleaned & Overhauled.	6,802	
Shop Repairs on Cases.....	614	
Exchange Mechanisms.....	614	
Prepare Cases [New Meters].....	1,598	
Repair Cases in Field.....	139	
Repair Collection Equipment.....	47	
Minor Meter Repairs.....	12,126	21,986

#7346 PAINTER

Meters Painted.....	554	
		554
		<u>4,289</u>

TOTAL..... 376,941

INVENTORY OF PARKING METERS

AS OF JUNE 30, 1984

<u>District</u>	<u>Number</u>	<u>Number in Off-Street Parking Lots</u>		
A	<u>1,097</u>	<u>69</u>		
B	<u>944</u>	<u>119</u>		
C	<u>809</u>	<u>—</u>		
D	<u>891</u>	<u>46</u>		
E	<u>756</u>	<u>—</u>		
F	<u>1,147</u>	<u>165</u>		
G	<u>880</u>	<u>—</u>		
H	<u>895</u>	<u>—</u>		
I	<u>631</u>	<u>—</u>		
J	<u>810</u>	<u>—</u>		
K	<u>1,016</u>	<u>—</u>		
L	<u>605</u>	<u>27</u>		
M	<u>869</u>	<u>—</u>		
N	<u>939</u>	<u>—</u>		
O	<u>613</u>	<u>73</u>		
P	<u>705</u>	<u>20</u>		
R	<u>672</u>	<u>428</u>		
S	<u>842</u>	<u>35</u>		
T	<u>620</u>	<u>39</u>		
TOTAL	<u>15,741</u>	<u>1,021</u>	Grand Total	<u>16,762</u>



DEPARTMENT OF ELECTRICITY

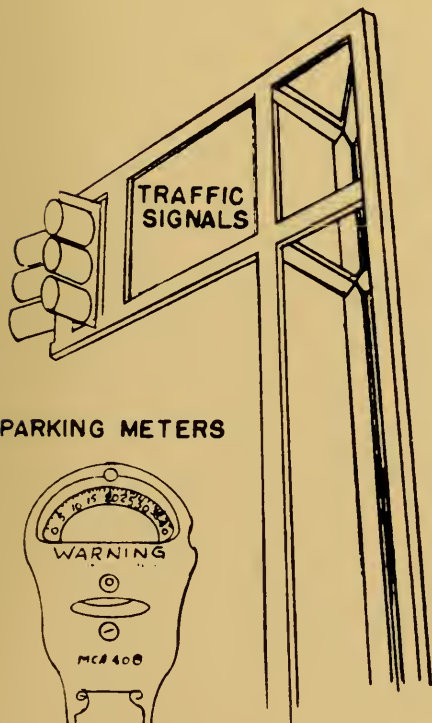
RADIO COMMUNICATIONS

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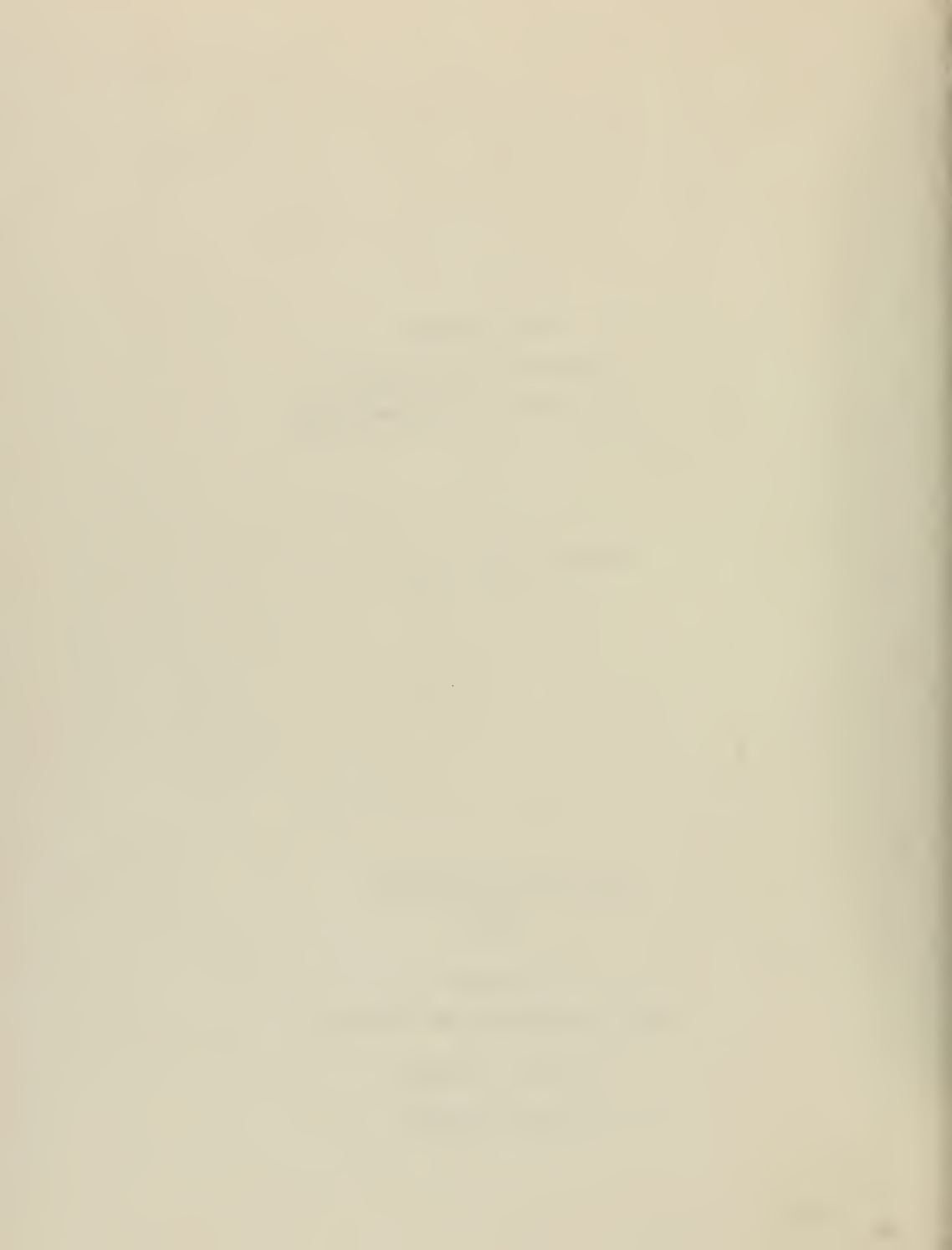
ANNUAL REPORT
DEPARTMENT OF ELECTRICITY
CITY AND COUNTY OF SAN FRANCISCO

FISCAL YEAR 1984-1985

HON. DIANNE FEINSTEIN
MAYOR

ROGER BOAS
CHIEF ADMINISTRATIVE OFFICER

JULES T. BECKLEY
GENERAL MANAGER





November 29, 1985

Mr. Roger Boas
Chief Administrative Officer
Room 289 City Hall
San Francisco, Ca. 94102

Dear Mr. Boas:

In accordance with the provisions of Section 3.501 of the Charter of the City and County of San Francisco, I am pleased to submit the Annual Report of the Department of Electricity for Fiscal Year 1984/85.

The Department continues to fulfill its responsibilities and performs its functions through organization into four divisions: Administration, Electrical, Mechanical and Radio.

This report reflects the Department's goals, performance objectives, and measures for the 1984-1985 Fiscal Year.

The cost of operating the Department of Electricity during Fiscal Year 1984-1985 was \$5,485,808 or 16.12% greater than for the prior Fiscal Year.

I sincerely appreciate the help and understanding extended by you and your staff during this past year.

Respectfully submitted,

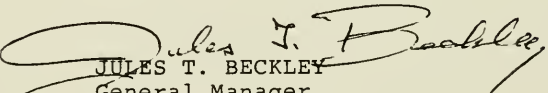

JULES T. BECKLEY
General Manager
Department of Electricity

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PARKING METERS AND MECHANICAL SERVICES	23 - 30

ADMINISTRATION

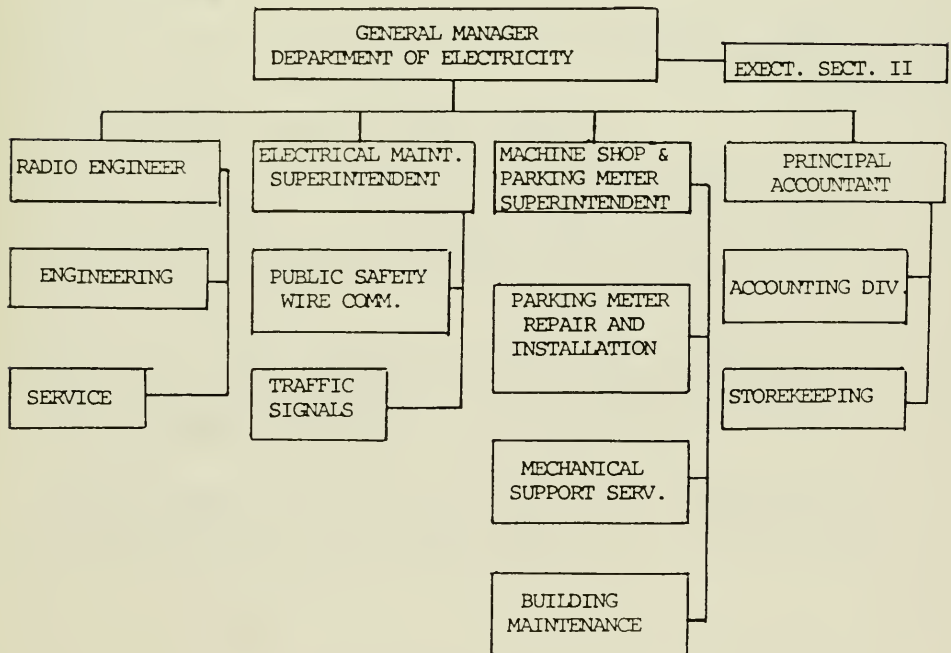
The Department of Electricity is a General Service Department whose main function is to provide service in the areas of:

Parking Meters
Traffic Signals
Radio Communications
Wire Lines/Teletype Communications
Fire Alarm Box Systems/Dispatch and Command & Control Functions
Overhead and Underground Wire and Cable Systems
Air Raid Siren Systems
Operation of Fire Department Switchboard
Other Ancillary Support Functions

Effective management and coordination is provided by the General Manager and a Division Head in charge of each program.

Major Programs are:

- [a] Administration/Management & Departmental Support Services
- [b] Parking Meter Maintenance & Repair
- [c] Public Safety Wire Communications
- [d] Radio Communications
- [e] Traffic Signal Maintenance/Repair



HIGHLIGHTS OF THE DEPARTMENT OF ELECTRICITY'S
OPERATING BUDGET FOR FISCAL YEAR 1984-1985.

ADMINISTRATION AND SUPPORT SERVICES DIVISION

The Controller's Payroll/Personnel Division has converted the old system of manually preparing the Payroll into an automated Payroll System and put into use in August, 1984.

Extensive follow-up of Damage Claims against private individuals has increased the General Fund revenue from \$39,029 [1983/84] to \$58,534 [1984/85]. The main sources of revenue are from claims for damages on Traffic Signals, Parking Meters and Police & Fire Alarm Boxes.

The Controller's Internal Auditors have audited our Books and other financial records for the period from January to December, 1984. The audit includes the areas of Revolving Fund, Payroll, Work Orders, Damage Claim Receivables and Parking Meter Complaints record keeping. Minor deficiencies have been found and the corrective internal control procedures have been implemented.

PARKING METER MAINTENANCE AND REPAIR

This year there were over 300 new Parking Meter installations.

During the year there were 7000 Locks changed to a high security type. There are 6500 Locks that will be changed during the next Fiscal Year.

RADIO ELECTRONIC COMMUNICATIONS SERVICES

During the past year the Radio Division has placed in operation 80 new, Police Department Mobile Video Terminals [and the associated fixed base equipment] which are part of a Computer aided dispatch system that promises faster, highly accurate, flexible response by Police Units to Citizens complaints.

Also, a new, Radio Data Control System, that will activate San Francisco's 46 emergency warning Sirens and permit instant selective operation at a considerable saving in leased telephone line costs, has been engineered, ordered and scheduled for completion next Fiscal Year.

A Closed Circuit Television System has been installed and is operating at the 3rd Street "Lefty O'Doul" Drawbridge to provide day and night surveillance of all the approaches and pedestrian walks, by the Bridge Tender.

TRAFFIC SIGNAL MAINTENANCE AND REPAIR

Traffic Signals were placed in operation at the following new intersections:

	<u>DATE</u>
Union & Hyde	7/18/84
Union & Mason	8/2/84
Jackson & Mason	8/2/84
Jackson & Powell	9/5/84
Washington & Mason	1/9/85
Bay & Kearny	3/26/85
25th & Guerrero	4/9/85
3rd & Jerrold	4/9/85
Market & Danvers	5/30/85
Market & 18th	5/30/85
Market & Glendale	5/30/85
Market & Romain	5/30/85
Market & Argent	5/30/85
Market & Corbett	5/30/85

A total of 14 new Traffic Signal intersections

DEPARTMENT OF ELECTRICITY
BUDGET BY PROGRAM
FISCAL YEAR 1984-1985

Traffic Signal
Maintenance
\$883,743 Note [1]
[16%]

Public Safety
Wire Communications
\$1,860,772
[34%]

Radio Electronic
Communications
\$648,720
[12%]

Parking Meter
repairs and
maintenance
\$1,017,684
[18%] Note [2]

Administration and Supply
Services
\$650,139
[12%]

Capital improvements,
facilities maint. and
programmatic project
\$424,750
[8%] Note [3]

TOTAL= \$5,485,808

NOTE [1] Funded by a Work Order from the Department
 of Public Works.

NOTE [2] \$168,493 was funded by the Parking Authority
 Department through Work Order.

NOTE [3] DETAILS

-	Replacement of Roofs on the Department's Buildings.	\$298,000
-	Installation of Fence at the Central Radio Station on Twin Peaks	\$ 33,000
-	Radio Control for Siren System Conversion	\$ 72,750
-	Miscellaneous facilities maintenance	<u>\$ 21,000</u>
	TOTAL	<u><u>\$424,750</u></u>

ADMINISTRATION AND SUPPORT SERVICES DIVISION

Under the general administrative direction of the General Manager, the Principal Accountant directs, plans and supervises the Accounting Section.

PERSONNEL

1-1654 Principal Accountant
2-1650 Accountants
1-1632 Sr. Account Clerk

FUNCTION

- To disburse funds in accordance with legally approved and authorized expenditure appropriations.
- To record revenue receipts and disbursements accurately and efficiently in properly classified accounts [approximately seventy accounts]
- To carry out directives and fiscal policies set by the Controller's Office.
- To prepare financial reports to portray the accounting transactions recorded.
- To provide financial information and data appropriate for anticipation of future needs and solutions.
- To prepare bi-weekly payroll and maintain time records of personnel.
- To assist the General Manager in the preparation of the Departmental Budget.
- To file claims on damages of City owned properties under the jurisdiction of the Department of Electricity.

PERFORMANCE/OUTPUT

- The Accounting Section maintained an individual set of manually prepared books to control and account for the Labor Costs, Materials/Supplies, Contractual Services and other miscellaneous expenditures appropriated for the five [5] major programs of the Department.
- In Fiscal Year 1984/85 covered by this report, a total number of 237 Work Orders, Special Jobs and projects received from various City Departments have been processed. A separate subsidiary ledger of these Work Orders, Special Jobs and Projects have been maintained to account for each Job Order cost.

- Claims for damages on Traffic Signals, Parking Meters and Police/Fire Alarm facilities have been filed against the responsible parties. Follow ups were made by the Accounting/Administration Division to enforce payment. However, there are cases where the Claims filed require legal support and in the event we are unsuccessful in collecting payments within 90 days, the Claim is then forwarded to the Tax Collector's Office, Bureau of Delinquent Revenue for final disposition.

ACCOUNTING AND ADMINISTRATION SUPPORT SERVICES SCHEDULE OF
ESTIMATED AND COMPARATIVE REVENUES FOR FISCAL YEARS 1983/84
and 1984/85.

<u>SERVICE</u>		Estimated Revenue <u>1984/85</u>	<u>Actual Revenue</u>		Increase [Decrease]
			<u>1984/85</u>	<u>1983/84</u>	
Traffic Signals	[1]	\$25,000	\$48,129	\$26,314	83%
Parking Meters	[1]	4,000	5,086	6,818	[25%]
Police & Fire Alarm Facilities	[1]	3,000	3,940	3,874	2%
Electrical Inspection Fee	[2]	1,800	1,379	2,023	[32%]
Housemoving Electrical Fee		<u>35</u>	<u>-0-</u>	<u>-0-</u>	
TOTALS		<u>\$33,835</u>	<u>\$58,534</u>	<u>\$39,029</u>	<u>\$19,505</u> [3]

NOTES:

- [1] The recovery of damages is deposited to the Treasurer's Office and recorded in the books as a General Fund Revenue.
- [2] These are fees collected for the inspection of overhead line wires and rental of Fire Alarm Boxes from private companies. The fees are also deposited to the Treasurer's Office and recorded in the books as a General Fund Revenue.
- [3] The increase of actual revenue in the amount of \$19,505 [or 50%] as compared with the previous Fiscal Year 1983/84 is due mainly to the increase in damages to Traffic Signals.

In addition to the accounting functions, the Division is also responsible for certain administrative and personnel support services.

PERSONNEL

1-1424 Clerk Typist

1-1452 Executive Secretary II

FUNCTION

- Transcribes correspondence from the General Manager's Office.
- Provides personnel services for the Department and handles personnel matters with the Civil Service Commission.
- Provides clerical and typing support services.
- Transmits messages to the Parking Meter Repairers in the field to expedite repairs of Parking Meters.
- Performs daily trips to the City Hall to deposit checks and pick up and deliver mail and documents.

ADMINISTRATION AND SUPPORT SERVICES DIVISION

PROGRAM OBJECTIVE [MBO]

ACTUAL PERFORMANCE

To accomplish 80% of the Department's objectives

70% *

To effectively collect 40% of all Damage Claims involving Traffic Signals, Parking Meters and Police & Fire Alarm facilities.

70%

To effectively provide 75% of requested monthly repairs in support of all programs including Buildings, facilities and Automobiles.

75%

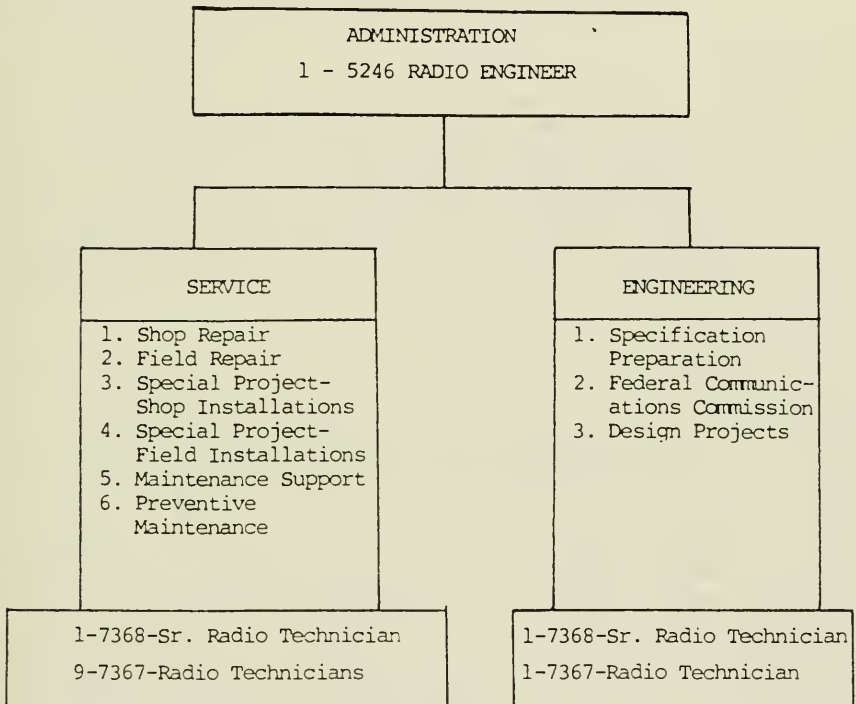
- * The overall actual performance by the Department has been adversely affected by the following two [2] areas which resulted in a 10% below target.

- [1] There were 2,150 Radio/Electronic units [the majority from the Police & Fire Depts.] added to the preventive maintenance program, without a corresponding increase of Radio Technicians has caused one MBO objective not to be fully accomplished. To effectively improve the situation, a request for additional Radio Technicians was included in the Budget for Fiscal Year 1985/86 but was denied.

[2] The resignation of two [2] personnel [Electrician and Electrical Lineman] were not filled for a considerable length of time during Fiscal Year 1984/85 in order to meet the Salary Savings imposed in the Budget, hampered the ability of the Public Safety Wire Communications and Traffic Signal Maintenance Programs to execute it's objectives.

However, all other objectives have been satisfactorily achieved.

RADIO-ELECTRONIC COMMUNICATIONS SERVICES PROGRAM



RADIO ELECTRONIC COMMUNICATIONS SERVICES PROGRAM ACTIVITIES

Radio Engineering and Servicing are the two major functions of the Radio Electronic Communications Services Program.

General responsibilities are to consult, plan, design, manage and service the Radio Electronics Communications Systems for the various Departments of the City and County of San Francisco.

This Division provides expertise and services through estimates, specifications, equipment procurement, F.C.C. licensing, installation, inspection, maintenance, repair and service of any City Radio Electronics Communications System. This work is done in conformance with Federal Communications Commission Rules & Regulations and Industry Standards. Special electronics projects, funded by inter-departmental Work Orders, are also part of this Division's responsibility.

SERVICING:

Shop repair activity:

Services malfunctioning Portable and Mobile Radio Electronic Units and vehicular Radio Electronic Systems brought into the Shop from operational systems:

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] Vehicle Systems Serviced	3160	3410
[B] Portable & Mobile Units Serviced	2922	2647

Field repair activity:

Maintains fixed field Radio & Electronics Equipment at various locations throughout the City.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] Fixed units serviced	2828	2567

Special Projects:

Shop installation activity:

Performs installation of new and renovated Mobile Radio Electronic Equipment. Inspects new Portable & Mobile Radio Electronic Equipment before operational use.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] Mobile Units installed	413	424
[B] Mobile Units removed	232	277
[C] New Portable/Mobile Units inspected [acceptance checks]	403	741

RADIO ELECTRONIC

COMMUNICATIONS SERVICES PROGRAM

PROGRAM GOAL:

TO EFFECTIVELY CONSULT, PLAN, DESIGN, MANAGE AND SERVICE RADIO ELECTRONIC COMMUNICATIONS SYSTEMS FOR VARIOUS DEPARTMENTS OF THE CITY & COUNTY OF SAN FRANCISCO.

PROGRAM OBJECTIVES:

- To complete the design of 60% of the Engineering Projects within schedule and budget.
- To complete preventive maintenance of 40% of fixed Radio/Electronic Equipment annually.
- To keep an average of 90% of all Portable and Mobile Radio/Electronic units operational.
- To restore to service 80% of the fixed Radio/Electronic equipment within 4 hours of reported failure.

PROGRAM PERFORMANCE:

84/85

- | | |
|--------------------------------------------------------------------------------------------|--------|
| - Engineering design projects completed within schedule | 72.60% |
| - Fixed Radio/Electronic Equipment preventive maintenance completed within schedule. | 23.69% |
| - Portable Radio/Electronic units operational | 99.66% |
| - Mobile Radio/Electronic units operational | 99.63% |
| - Fixed Radio/Electronic equipment restored to service within 4 hours of reported failure. | 99.24% |

All program objective targets have been met or exceeded this year with the exception of the preventive maintenance target. This target was not met due to the lack of personnel--three [3] additional Radio Technicians were requested for this Fiscal Year and were denied.

A combination of 809 new, additional, fixed, mobile and portable equipment was added to our maintenance workload this year by various City Departments.

[2] F.C.C. Licensing Activity:

Applies to the Federal Communications Commission for authority to install and operate fixed and Mobile Radio Equipment. Obtains coordination and approval of area communications Agencies. Reviews and modifies licenses as required.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] F.C.C. applications	51	13
[B] F.C.C. coordinations	42	30
[C] F.C.C. renewals	84	56

[3] Engineering design projects activity:

Consults, plans, designs, implements and manages various new projects for the changing needs of City Departments.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] Projects	10	5

4- Special Projects:

Field installation activity:

Pre-tests, inspects, installs, adjusts & accepts new fixed Radio Electronic Equipment and Systems at various field locations throughout the City.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] New fixed equipment pre-tested and inspected [acceptance checks]	28	68
[B] New fixed equipment/systems installation, adjustment & acceptance. [Non recurring projects completed]	7	5

5- Maintenance support activity:

Service record data is kept for all Portable, Mobile and fixed equipment systems. Stock records and levels are kept to assure availability of necessary items to support the maintenance and repair of all fixed, Mobile and Portable Radio Electronic Equipment. Calibration records are kept for all fixed, Mobile and Portable equipment.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] Service Order Record Data	8932	9751
[B] Support Requisitions	390	314
[C] F.C.C. Calibrations	2644	2649

6- Preventive Maintenance:

Preventive maintenance is performed on all fixed Radio and Electronic Equipment on a regular basis.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] Preventive maintenance of fixed units	2195	1939

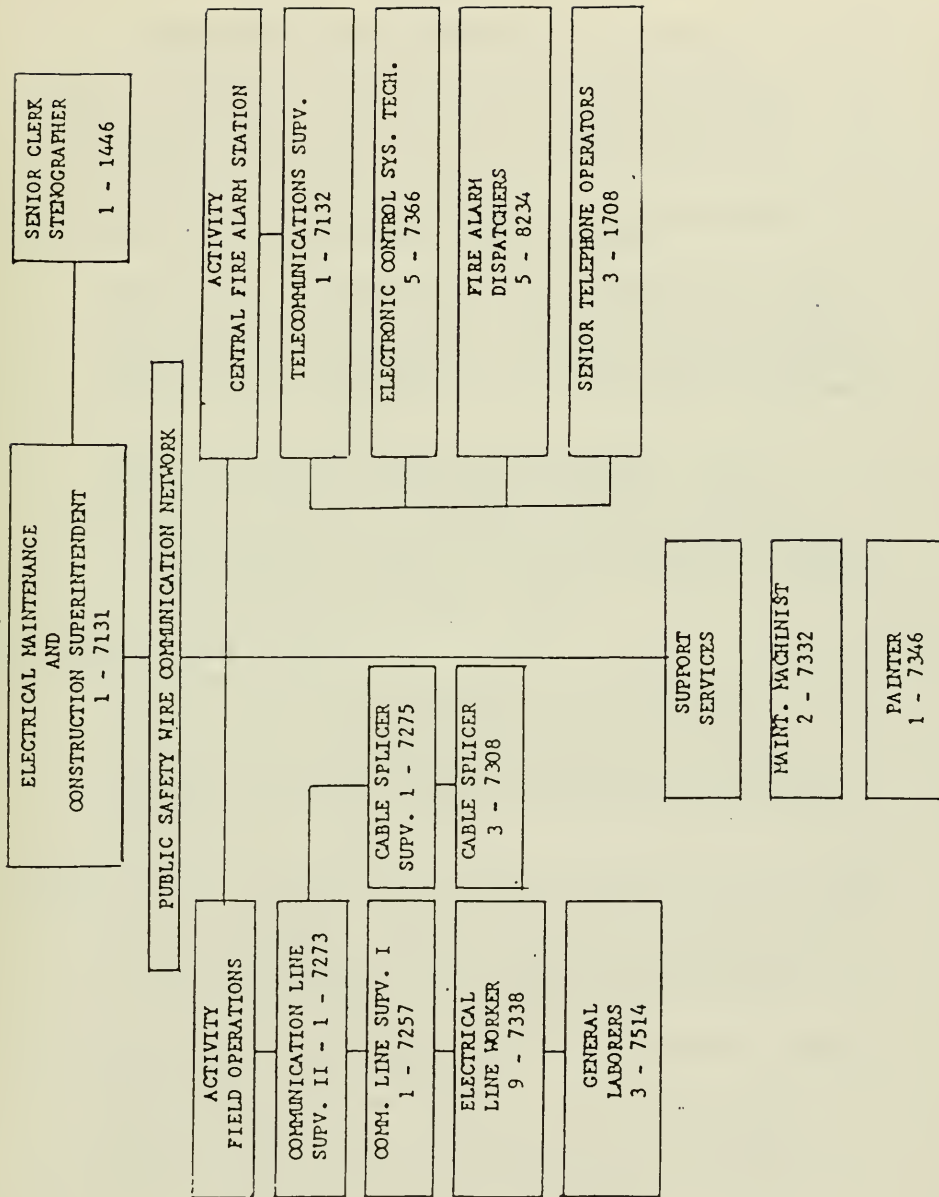
ENGINEERING

[1] Engineering specification preparation activity:

Develops written specifications that identify the parameters of equipment needed to meet communications requirements. Prepares cost estimates for system design projects and equipment procurement. Performs preliminary studies and field surveys prior to development of specifications.

<u>Program Output:</u>	<u>83/84</u>	<u>84/85</u>
[A] Specifications	70	41
[B] Estimates	141	92

CHART A



PROGRAM

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

GOAL: To effectively maintain Public Safety Wire Line Circuits in order to provide timely fire protection, Police and emergency responses in compliance with requirements of National Fire Protection Association regarding maintenance and testing.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Operation and maintenance of the Central Fire Alarm Station on a 24-hour basis. This activity includes maintenance and service of the computer-assisted Fire Alarm Dispatch System with teletype and voice announce Consoles in 44 Fire Stations and associated agencies of the Fire Department.

Operation and maintenance of the City's Fire and Police Non-Radio Communication Systems. This activity consists of maintenance of the Fire Box Alarm System, Police Call-box System, Police Private Telephone System, Mayor's Emergency Telephone System, Air Raid Siren System along with the related Overhead Line and Underground Cable System.

Management Data System:

This Data System is interfaced with the Computer main frame at the Central Fire Alarm Station using Department Cable pairs to Fire Department Headquarters. CRT data terminals and line printers are used by various bureaus of the Fire Department Administrative Headquarters to send, store or retrieve data from the Computer Main Frame.

Central Fire Alarm Station activities include the following:

Monitors Fire Box Alarm Panels connected to all street Fire Alarm Boxes. Alarms received are transmitted through the Computer which provides the Fire Department Bureau of Communications Assignment Officer with a recommended assignment for dispatch.

Monitors hot lines and registers from private Central Office Fire Alarm Companies.

Tests 47 circuits connected to the Air Raid Siren Warning System daily. Tests Sirens on a weekly basis to insure satisfactory operation. Conducts scheduled tests of Fire Alarm Box circuits, dispatch circuits and emergency power equipment.

Coordinate test and repair activities with field personnel.

PUBLIC SAFETY

Field operation activities consist of the following:

Repair and maintenance of the City's Fire Alarm Box System along with the System's related overhead and underground circuits.

Repair and maintenance of the Police ring-in Telephone System along with the System's related wiring.

Routine replacing of overhead lines and underground Cables on an "as needed" basis.

Testing of the City's Fire Alarm Box System, Auxiliary Fire Alarm Systems connected to 130 Public Schools and supervision of auxiliary connections from various public buildings.

Expansion of the Mayor's Emergency Telephone System--Fire Stations 2, 36, 38, 11 and 15 have been added.

This operation also has personnel in the field on a 24-hour basis to respond to complaints on Fire Alarm Boxes, Fire Station equipment, Police telephones, Traffic Signals or any other complaint involving City property. This trouble shooting detail is available for immediate response to most emergency situations throughout the City.

PROGRAM OBJECTIVES

% of Central Fire Alarm complaints responded to in below 1 hour. Objective achieved [93%] was slightly below the goal of 95%.

% of Fire House complaints responded to in 1 hour. Objective achieved [95%]. Goal of 95% was met.

Reliability of Fire Alarm Boxes.
Objective achieved [99%]. Goal of 99% was met.

Testing of Fire Alarm Boxes.
Objective achieved [12,050] was above the annual goal of 12,000.

Reliability of Central Ring-in System.
Objective achieved [99%]. Goal of 99% was met.

Most of the Department's Public Safety Program Goals were met during FY 1984/85 despite severe weather conditions. Storms during this Fiscal Year again caused heavy damage to both our overhead and underground facilities. For two consecutive years, personnel within the Public Safety Program worked under very adverse and hazardous conditions to maintain the reliability of the Department's facilities.

CENTRAL FIRE ALARM STATION

In addition to the Program Objectives, other activities carried out by personnel at the Central Fire Alarm Station are:

24-hour Radio contact with field personnel for immediate response to emergencies.

Summary of complaints received by personnel during Fiscal Year 1984 - 1985:

Fire Alarm Circuits	383
Fire Alarm Boxes	41
Police Call Box & Locals	24
Fire Station Line trouble	103
* SA/TPE Fire Stn. Eqpt.	343
** SA/TPE-CFAS	95
* Teletype & Voice Announce Consoles in Fire Stations.	
** Command & Control equipment - CFAS	

In addition to the Program Objectives, other activities carried out by personnel in the Public Safety Program field operations were:

FIRE ALARM & POLICE MAINTENANCE

Install 6 new Fire Alarm Boxes
Relocate 1 Fire Alarm Box
Remove 4 Fire Alarm Boxes from Service
Modernize 1 Fire Alarm Box
Repaired 121 Fire Alarm Box movements in the Shop
Repaired 87 Fire Alarm Boxes in the field
Made repairs to damaged Fire Alarm Boxes at 51 locations
Made repairs or replaced Fire Alarm Box Standards on routine at 60 locations
Tested 11,671 Fire Alarm Boxes in the field
Tested 1,092 School Fire Alarm Boxes in the field

FIRE HOUSE MAINTENANCE

Responded to 5 Fire House Station complaints
Cleared trouble on 67 Command & Control circuits to Fire House Stations.

TRAFFIC DAMAGE AND ROUTINE MAINTENANCE

Assisted the Traffic Division, in the field, at 93 locations.

OVERHEAD LINES AND UNDERGROUND CABLES

Continued replacement of old Cable has been reflected in an overall drop of trouble complaints [19%]. This has made possible the adding of more stations to the Mayor's Emergency System and increasing our maintenance programs.

OVERHEAD LINES AND UNDERGROUND CABLES [cont'd]

Transferred facilities to new PG&E Poles at 74 locations
Replaced Crossarms at 54 locations
Performed routine maintenance to overhead lines at 326 locations
Performed routine maintenance and cleared trouble in Fire Alarm Circuits at 385 locations
Replaced defective Cables or installed Cables in new areas [26,175 feet of various size Cable]
Installed 250 feet of various size Conduit in City streets
Spliced and cut over underground Cable at 211 locations
Underground Cable damaged by "third parties" at 10 locations
Complete Pole installation of Camera Monitor at the third street Bridge

RADIO TOWER MAINTENANCE [Twin Peaks]

Replaced Antennas on Towers #1 and #3
Replaced 3 Antenna Cables on Towers #1 and #2
Installed new Conduit and Wire for the Burglar Alarm System on Tower #3
Relamped Towers #1, #2 and #3 as required

AIR RAID SIREN SYSTEM

Test and maintain the City's Air Raid Siren System
Set new 50 foot Pole and complete new Siren installation at California and Funston Sts.
Installed a new Siren in McLaren Park
A complete installation of a Siren in Lafayette Park
Removed two Pole Siren Motors and three Siren Cabinets for maintenance

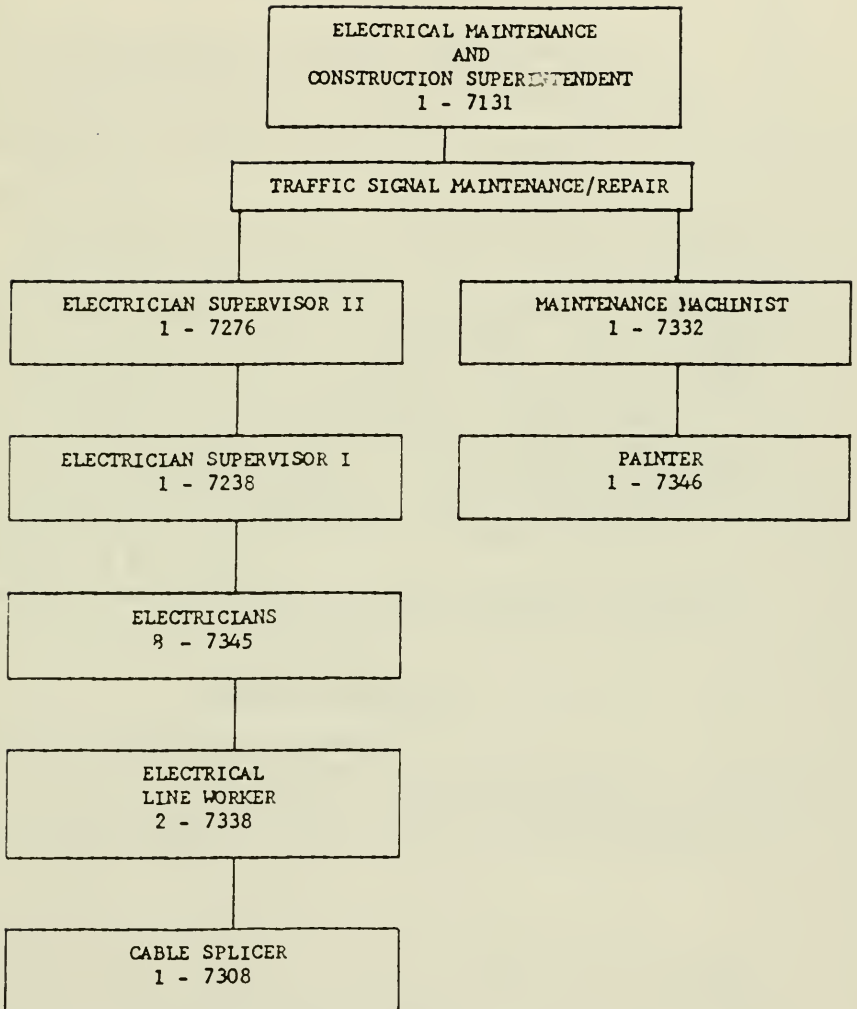
The following Work Order projects were worked on:

W.O. #51041--Installed a Burglar System in Fire Station thirty five
W.O. #50501--Installed a Sewer Monitor at the end of Napoleon Street
W.O. #50745--Replaced telephones in the Sheriff's Dept. on the 6th and 7th floor of the Hall of Justice
W.O. #50190--Air Raid Sirens

The following Special Jobs were completed:

S.J. 124	School Fire Alarm Box auxiliary testing
S.J. 384	Viacom relocations [23 locations]
S.J. 379	Relocated the overhead on Collingwood St. between 18th & 19th
S.J. 396	Installed 3 new Fire Alarm Boxes in Silverview Terrace

CHART B



PROGRAM

TRAFFIC SIGNAL MAINTENANCE/REPAIR

GOAL

To effectively maintain Traffic Signals along with associated underground Cables on a twenty four hour basis in order to provide for efficient traffic flow.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Activities are:

To provide field service, installation, Shop repair and overhaul of 952 intersections of Traffic Signals.

This program is funded from gas tax revenue via a Work Order from the Department of Public Works. Due to decreases in gas tax revenues over the past several years, funding for this program has not kept pace with increases in the cost of materials or wage increases. The end result being that the Traffic Shop is continuing to operate with a reduced staff. Priorities were established to make better use of personnel capabilities. Prime emphasis was placed on prompt response to complaints. Prompt response and more importantly, prompt repairs reduces the length of time an intersection remains in a condition which can be hazardous to the Public.

Prime emphasis was placed on prompt response to Citizen complaints, and this objective was achieved in spite of staffing and workload problems.

PROGRAM OBJECTIVES

Number of intersections relamped

Objective achieved [931] exceeded the goal of 740

This program was instituted to bring the relamping sequence to a more normal relamping schedule based on the life span of a Traffic Signal Lamp.

% of complaints responded to in one hour

Objective achieved [82%] Goal of 95% was not met.

This goal was not met due to the increase in intersections to maintain and a delay in filling a vacancy for a Traffic Electrician for approximately 6 months. This vacancy caused a decrease of 12½% in available manpower

Number of Dispatchers/Controllers overhauled or serviced

Objective achieved [356] was below the goal of 400

This objective was not achieved for the same reasons as the above.

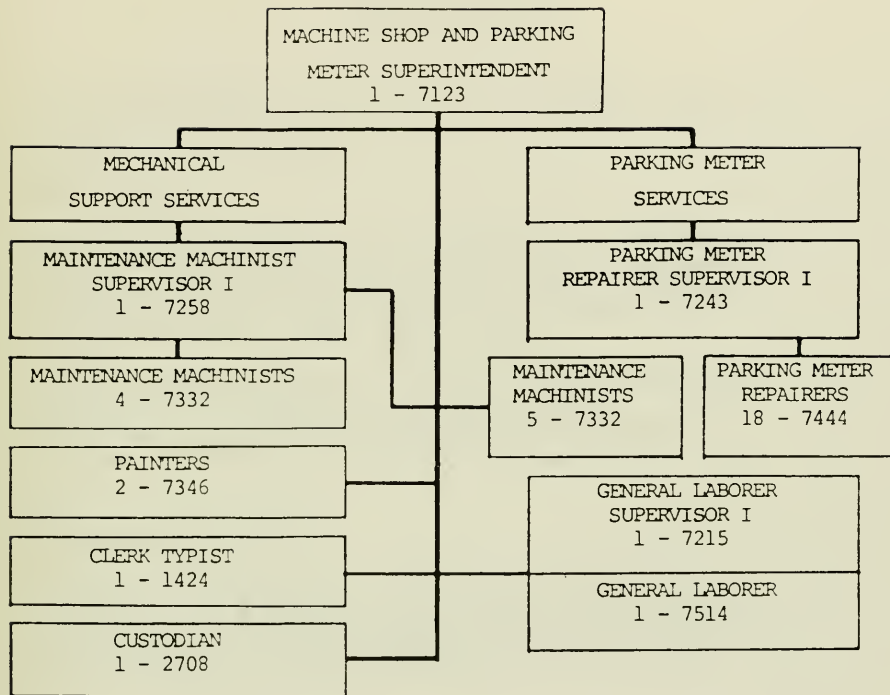
In addition to the Program Objectives, other activities carried out by personnel in the Traffic Signal Program were:

Responded to 3,090 complaints on a 24-hour basis. Made repairs to damaged equipment at 145 locations. Made repairs to damaged Conduits, and replaced wiring at 29 locations. Replaced Signal Heads at 160 locations.

Made relocations, installations and modifications under Special Jobs at:

- [1] Battery at Washington & Jackson-Converted to "Please Dont Walk"
- [2] 333 Bush St.-rerouted Master Cable
- [3] Geneva & Santos-installed 1 way "D" Signal
- [4] Market & Geary Sts.-replaced 4 Pedestrian Signals
- [5] Sutter & Grant Sts.-replaced NW & SW vehicle Signals
- [6] Ellis & Mason Sts.-installed 7 foot Pole, 2 Pedestrian Signals.
- [7] Polk & O'Farrell Sts.-installed temporary Signal NE
- [8] Post & Franklin Sts.-installed temporary Signal NE
- [9] Post & Van Ness Sts.-installed temporary Signal NW
- [10] Sutter & Grant Sts.-modified Controller Cabinet
- [11] Lombard & Van Ness-installed timing changes
- [12] Columbus & Kearny Sts.-modified to flashing "Dont Walk"
- [13] 5th & Ellis Sts.-installed new Signals SW
- [14] 5th & Eddy Sts.-installed new Pedestrian Signal N
- [15] Ocean & Phelan-installed 5 section vehicle Signal SW
- [16] Ramada Hotel-installed vehicle Signal
- [17] Sutter & Jones Sts.-installed 2" & 1½" Conduit
- [18] Van Ness & California-raised NW Signal two feet
- [19] 8th & Townsend Sts.-removed 4/EA Poles & Signals
- [20] 8th & Brannan Sts.-installed flashing Ambers N
- [21] Sacramento & Montgomery-installed temporary Signals NW
- [22] Post & Mason Sts.-installed 2 way Signal NW
- [23] Market & 5th Sts.-installed temporary Signals NE & SW
- [24] Alemany & Crescent Sts.-installed 2 way Signal SW
- [25] Fell & Laguna Sts.-installed 3 Controllers
- [26] 2nd & Folsom Sts.-installed temporary Signals
- [27] O'Farrell & Taylor Sts.-installed temporary Signals SE
- [28] 3rd & Army Sts.-installed new Conduit NCI, SCI

MECHANICAL DIVISION
FISCAL YEAR 1984-1985



ALLOCATION OF PERSONNEL IN SUPPORT OF VARIOUS PROGRAMS

	<u>PUBLIC SAFETY</u>	<u>PARKING METERS</u>	<u>TRAFFIC</u>	<u>ADMIN.</u>
M.S. AND P.M. SUPT.				1
MAINT. MACH. SUPV. I				1
P.M. REPAIRER SUPV. I		1		
GEN. LABORER SUPV. I		1		
MAINT. MACHINISTS	2	5	1	1
P.M. REPAIRERS		18		
PAINTERS	1		1	
GENERAL LABORERS		1		
CUSTODIAN				1
CLERK TYPIST				1

MECHANICAL DIVISION

FISCAL 1984-1985

The following mechanical services were performed in support of the Public Safety, Traffic Signal, Radio and Administration programs:

Manufactured

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete Fire Alarm Boxes in the new Underground Districts. New and replacement parts for Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens and Instruments were manufactured in the Machine Shop as needed.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

Maintenance and Repair

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the Public.

Painting

Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the Shop and field. Due to a shortage of personnel, we are on a four [4] to five [5] year painting cycle, rather than a two [2] year cycle recommended for some of the above equipment.

Other Duties

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all Mechanical equipment were kept.

MECHANICAL DIVISION
MANUFACTURE, MAINTENANCE AND REPAIR
FOR FISCAL 1984-1985

The Mechanical Division under the direction of the Machine Shop and Parking Meter Superintendent has full responsibility for the Parking Meter program and is a support service for the Departments' other programs and functions, which includes the maintenance, repair and manufacturing of all mechanical equipment under the jurisdiction of the Department of Electricity.

The equipment includes the following:

- 2044 - Fire Alarm Boxes
- 471 - Police Call Boxes
- 79 - Desk Set Phones
- 952 - Traffic Signal Intersections

All mechanical equipment at the Central Fire Alarm Station, Central Radio Station, Hall of Justice Communications Room, and the Plant at 901 Rankin St., including five [5] emergency gas and diesel driven generators.*

* Generators at Central Fire Alarm Station [2], Central Radio Station [2] and McLaren Park. [1]

- 17,054 - Parking Meters
- 48 - Emergency Warning Sirens
- 57 - pieces of gas driven equipment, 50 mobile and 7 stationary. The major repairs and servicing of the above equipment were done at the Purchasing Shops.

The maintenance of three [3] Departmental Buildings; the Plant at 901 Rankin St., Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through Contractual services.

MECHANICAL DIVISION
SUMMARY OF ACTIVITIES
FISCAL 1984-1985

	<u>Total Numbers</u>
Manufactured Fire Alarm Boxes, parts and related equipment.	220
Repaired Fire Alarm Boxes, parts and related equipment.	295
Manufactured Police Call Boxes and related equipment.	1088
Repaired Police Telephones and related Communications equipment.	62
Manufactured Traffic Signal Parts and Special Tools.	681
Repaired Traffic Signals, parts and related equipment.	558
Manufactured and repaired miscellaneous Air Raid Siren parts and related equipment.	10
Manufactured and repaired miscellaneous Radio equipment items.	93
Miscellaneous items manufactured and repaired for Plant and vehicular equipment.	506
Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	732
All registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk St. [plus related equipment].	1528
Emergency Generators serviced and tested at Central Radio Station and McLaren Park. [plus related equipment].	131

MECHANICAL DIVISION

PAINTING

FIELD AND SHOP

FISCAL 1984-1985

The following items have been hand prepared or sandblasted, primed and finish coated:

FIRE ALARM SYSTEM

	<u>Total Numbers</u>
Fire Alarm Boxes-Field and Shop	429
Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc.-Field & Shop	1637

POLICE COMMUNICATIONS

Police Call Boxes-Field & Shop	154
Miscellaneous items-Shop	22

TRAFFIC SIGNALS

Vehicular Signals-Field & Shop	582
Signal Controllers-Field & Shop	93
Walk-Wait Pedestrian Signals-Field & Shop	131
Signal Posts, Poles, etc.-Field & Shop	190
Traffic Signal Visors & Louvers-Field & Shop	-0-

MISCELLANEOUS

Cabinets, Siren Parts, Ladders [oiled-shellacked] Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, touch up, etc.	75
Painting at the Plant at 901 Rankin St. at the Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks.	-0-

MECHANICAL DIVISION

PARKING METER PROGRAM

FISCAL 1984-1985

GOAL:

To effectively maintain and repair Parking Meters in order to maximize revenues.

PROGRAM OBJECTIVES

To insure effective field service and inspection to 73% of the City's 17,000 Parking Meters daily.

To insure accuracy, dependability and increase years of service by performing a complete overhaul in the Shop to 40% of the Parking Meter mechanisms, annually.

To complete 70% of the Parking Meter Post damages, repairs and installations daily.

PROGRAM OUTPUT

	<u>1983/84</u>	<u>1984/85</u>
% of Meters serviced daily	74%	68%
% of Meters overhauled:	40%	30%
% of Meter Posts installed daily	70%	68%

Objectives were not met because manpower was diverted into changing Coin Door Locks. A total of 13,000 Locks are in the process of being changed, without employing additional personnel. These new high security tumbler type Locks are extremely difficult to duplicate and should serve to reduce Parking Meter pilferage.

This year we installed over 300 new Parking Meters.

Revenues from Parking Meters for Fiscal Year 1984/85 was \$6,297,236.

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

FISCAL YEAR 84/85

NATURE OF TROUBLE

#7444 - PARKING METER REPAIRER

Jammed Intentionally.....	186,569
Cases Cleaned.....	9,370
Damaged Meters Removed.....	112
Exchange Heads.....	39
Exchange Mechanisms.....	3,097
Exchange Mechanisms for Cleaning.	1,030
Exchange Timers.....	481
Hoods Removed.....	26,824
Lock Open Coin Doors.....	51
Tighten Heads.....	665
Tighten Mechanisms.....	0
Mechanical Adjustment Mechanisms.	25,724
Mechanical Adjustment Cases.....	5,580
Meters Installed.....	553
Meters Replaced.....	1,096
Meters Removed from Service.....	397
Temporarily out of Service.....	319
O.K. Requested Inspections.....	8,820
Replace Coin Glass.....	228
Replace Coin Lock.....	6,656
Replace Parts to Cases.....	6,066
Replace Parts to Mechanisms.....	7,242
Replace Signal Glass.....	64
Stuck Coins.....	20,017
Service Coin Door.....	107
Stuck Indicators.....	1,265
Stuck Signals.....	2,291
Stuck Timers.....	3,388
Unwound Main Springs.....	13,324
Winding Hole Plugged.....	64
Replace Missing Coin Can.....	1,140
Exchange Defective Coin Can.....	607

WORK ON POSTS:

#7444 P.M. REPAIRER

Straightened..... 883

#7514 LABORER

Straightened..... 1,038

Removed..... 47

Relocated..... 753

Installed..... 628

Replaced..... 451

Reset..... 598

TOTAL 3,796

Service Coin Lock 875
 Conversion to S 43

334,206

#7332 MAINTENANCE MACHINIST

Timers Rebuilt.....	126
Mechanisms Cleaned & Overhauled.	6,226
Shop Repairs on Cases.....	1,316
Exchange Mechanisms.....	1,316
Prepare Cases [New Meters].....	2,190
Repair Cases in Field.....	130
Repair Collection Equipment.....	56
Minor Meter Repairs.....	22,076

#7346 PAINTER

Meters Painted.....	366
	366
	3,796
TOTAL.....	366,447

INVENTORY OF PARKING METERS
MONTH OF JUNE 1985

<u>District</u>	<u>Number</u>	<u>Number in Off-Street Parking Lots</u>	
A	<u>1099</u>	<u>69</u>	
B	<u>957</u>	<u>119</u>	
C	<u>843</u>	<u>-</u>	
D	<u>925</u>	<u>46</u>	
E	<u>762</u>	<u>-</u>	
F	<u>1167</u>	<u>163</u>	
G	<u>889</u>	<u>-</u>	
H	<u>907</u>	<u>-</u>	
I	<u>647</u>	<u>-</u>	
J	<u>835</u>	<u>-</u>	
K	<u>1026</u>	<u>-</u>	
L	<u>662</u>	<u>27</u>	
M	<u>865</u>	<u>-</u>	
N	<u>969</u>	<u>-</u>	
O	<u>646</u>	<u>73</u>	
P	<u>709</u>	<u>20</u>	
R	<u>690</u>	<u>339</u>	
S	<u>858</u>	<u>35</u>	
T	<u>668</u>	<u>39</u>	
Total	<u>16,124</u>	<u>930</u>	Grand Total <u>17,054</u>

DEPARTMENT OF ELECTRICITY

CITY AND COUNTY OF SAN FRANCISCO

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ANNUAL REPORT

FISCAL YEAR 1985-1986



December 3, 1986

Mr. Roger Boas
Chief Administrative Officer
Room 289 City Hall
San Francisco, CA 94102

Dear Mr. Boas:

In accordance with the provisions of Section 3.501 of the Charter of the City and County of San Francisco, I am pleased to submit the Annual Report of the Department of Electricity for Fiscal Year 1985-1986.

The Department continues to fulfill its responsibilities and performs its functions through organization into four divisions: Administration, Electrical, Mechanical and Radio.

This report reflects the Department's goals, performance objectives, and measures for the 1985-1986 Fiscal Year.

The cost of operating the Department of Electricity during Fiscal Year 1985-1986 was \$5,327,149 or 2.90% lower than for the prior Fiscal Year.

I sincerely appreciate the help and understanding extended by you and your staff during this past year.

Respectfully submitted,

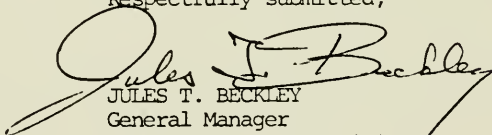

JULES T. BECKLEY
General Manager
Department of Electricity

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ADMINISTRATION

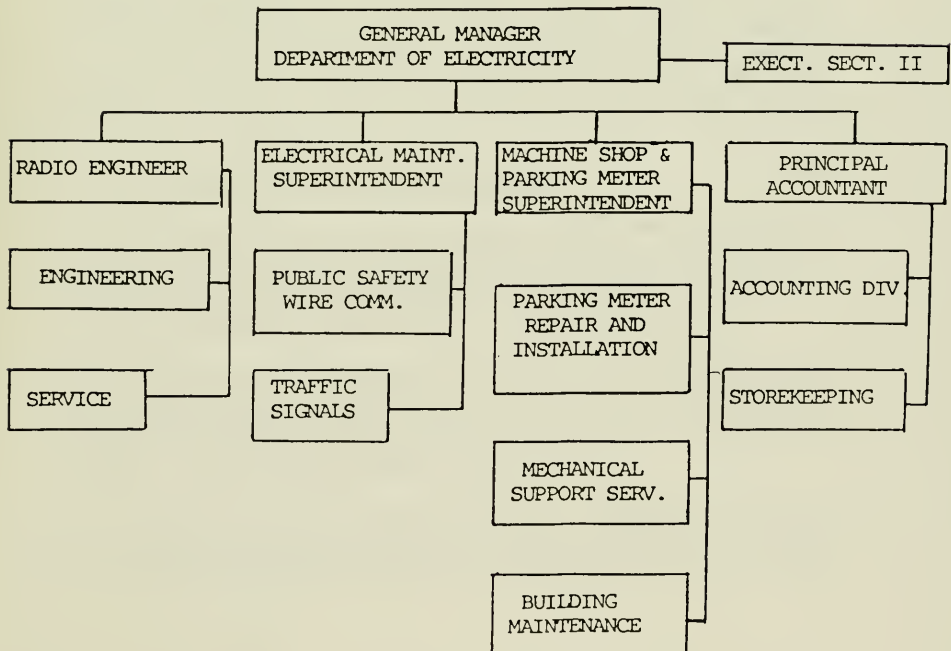
The Department of Electricity is a General Service Department whose main function is to provide service in the areas of:

Parking Meters
Traffic Signals
Radio Communications
Wire Lines/Teletype Communications
Fire Alarm Box Systems/Dispatch and Command & Control Functions
Overhead and Underground Wire and Cable Systems
Air Raid Siren Systems
Other Ancillary Support Functions

Effective management and coordination is provided by the General Manager and a Division Head in charge of each program.

Major Programs are:

- [a] Administration/Management & Departmental Support Services
- [b] Parking Meter Maintenance & Repair
- [c] Public Safety Wire Communications
- [d] Radio Communications
- [e] Traffic Signal Maintenance/Repair



HIGHLIGHTS OF THE DEPARTMENT OF ELECTRICITY'S
OPERATING BUDGET FOR FISCAL YEAR 1985-1986

ADMINISTRATION AND SUPPORT SERVICES DIVISION

Extensive follow-up of Damage Claims against private individuals has increased the General Fund revenue from \$58,534 [1984-1985] to \$64,339 [1985-1986]. The main sources of revenue are from claims for damages on Traffic Signals, Parking Meters and Police & Fire Alarm Boxes.

There was no funds provided for capital improvements during fiscal year 85/86.

PARKING METER MAINTENANCE AND REPAIR

This year there were 350 new Parking Meter installations, which is an increase of over 1,300 meters during the past 3 years.

During the year, there were 6,500 locks changed to a high security type. This completed the project that was started last year, which totals 13,500 new lock installations.

Also during the year, 1,000 of the existing 6,300 automatic meters were converted to manual meters. The conversions will be completed mid-way into the next fiscal year. At that time, all of the nearly 17,500 meters will be of the manual type, which are more difficult to jam and more dependable than the automatic meters. This will maximize the number of operational meters, consequently there will be more available parking spaces as well as increased revenue.

RADIO ELECTRONIC COMMUNICATIONS SERVICES

During the past year the Radio Division has placed in operation 108 new Police Department Mobile Video Terminals [and the associated fixed base equipment] which are part of a Computer aided dispatch system that promises faster highly accurate, flexible response by Police Units to Citizens complaints.

The Department of Electricity's new Radio Data Control System that allows activation of San Francisco's 46 emergency warning Sirens and permits instant selective operation at a considerable saving in leased telephone line costs, has been engineered, ordered, installed and placed in operation.

A Video Microwave System linking the Hall of Justice to each of the 9-District Police Stations and Academy has been engineered, specified ordered and scheduled for completion next fiscal year.

TRAFFIC SIGNAL MAINTENANCE AND REPAIR

Traffic Signals were placed in operation at the following new intersections:

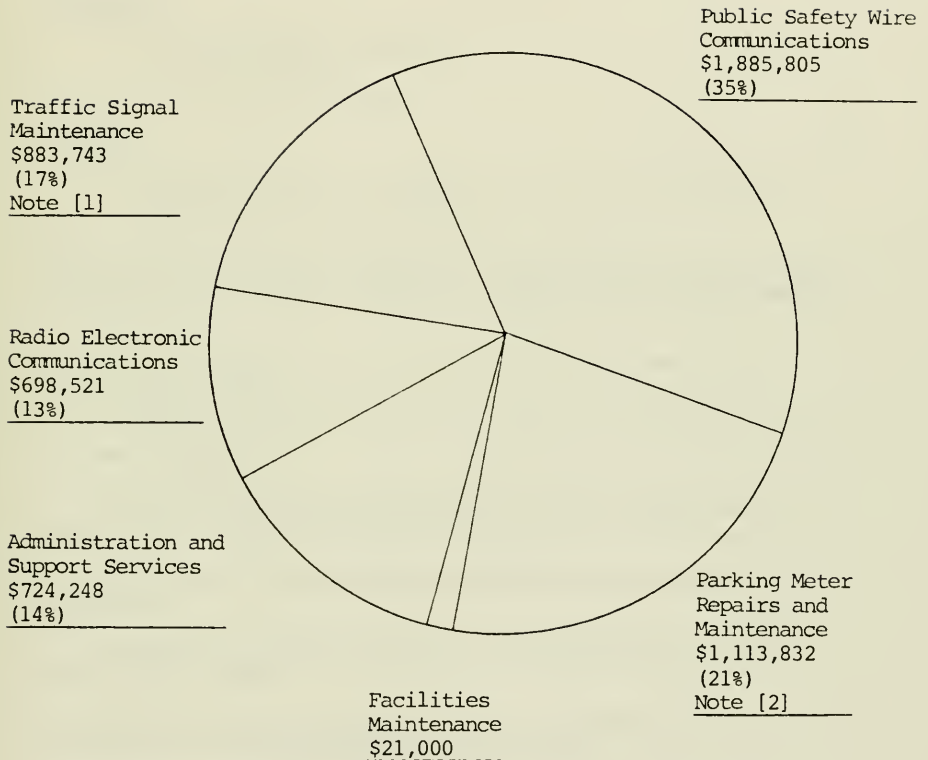
	<u>DATE</u>
California & Buchanan	8/ 7/85
California & Walnut	10/16/85
Marina & Laguna	1/ 8/86
Marina & Fillmore	1/ 8/86
Marina & Buchanan	1/14/86
Geary & 8th Avenue	2/ 6/86
4th & Clara	2/26/86
19th & Folsom	3/26/86
Ocean & Lee	3/26/86
Pacific & Battery	4/30/86

A total of 10 new Traffic Signal intersections.

DEPARTMENT OF ELECTRICITY

BUDGET BY PROGRAM

FISCAL YEAR 1985-1986



TOTAL = \$5,327,149

Note [1] Funded by a Work Order from the Department of Public Works.

Note [2] \$187,065 was funded by the Parking Authority Department through Work Order.

ADMINISTRATION AND SUPPORT SERVICES DIVISION

Under the general administrative direction of the General Manager, the Principal Accountant directs, plans and supervises the Accounting Section.

PERSONNEL

- 1 - 1654 Principal Accountant
- 2 - 1650 Accountants
- 1 - 1632 Sr. Account Clerk

FUNCTION

To disburse funds in accordance with legally approved and authorized expenditure appropriations.

To record revenue receipts and disbursements accurately and efficiently in properly classified accounts (approximately seventy accounts)

To carry out directives and fiscal policies set by the Controller's Office.

To prepare financial reports to portray the accounting transactions recorded.

To provide financial information and data appropriate for anticipation of future needs and solutions.

To prepare bi-weekly payroll and maintain time records of personnel.

To assist the General Manager in the preparation of the Departmental Budget.

To file claims on damages of City owned properties under the jurisdiction of the Department of Electricity.

PERFORMANCE/OUTPUT

The Accounting Section maintained an individual set of manually prepared books to control and account for the Labor Costs, Materials/Supplies, Contractual Services and other miscellaneous expenditures appropriated for the five [5] major programs of the Department.

In Fiscal Year 1985-1986 covered by this report, a total number of 251 Work Orders and Special Jobs received from various City Departments have been processed. A separate subsidiary ledger of these Work Orders and Special Jobs have been maintained to account for each Job Order cost.

Claims for damages on Traffic Signals, Parking Meters and Police/Fire Alarm facilities have been filed against the responsible parties. Follow ups were made by the Accounting/Administration Division to enforce payment. However, there are cases where the Claims filed require legal support and in the event we are unsuccessful in collecting payments within 90 days, the Claim is then forwarded to the Tax Collector's Office, Bureau of Delinquent Revenue for final disposition.

ACCOUNTING AND ADMINISTRATION SUPPORT SERVICES SCHEDULE OF ESTIMATED AND COMPARATIVE REVENUES FOR FISCAL YEARS 1984-85 AND 1985-86

<u>SERVICE</u>	<u>N O T E</u>	<u>Estimated Revenue 1985-86</u>	<u>Actual Revenue 1985-86</u>	<u>Increase [Decrease]</u>	<u>Estimated Revenue 1984-85</u>	<u>Actual Revenue 1984-85</u>	<u>Increase [Decrease]</u>
Traffic Signals	*	\$33,000	\$51,338	\$18,338	\$25,000	\$48,129	\$23,129
Parking Meters	*	4,000	6,575	2,575	4,000	5,086	1,086
Police & Fire Alarm Facilities	*	3,000	4,398	1,398	3,000	3,940	940
Electrical Inspection Fee	**	1,800	2,028	228	1,800	1,379	[421]
Housemoving Electrical Fee		35	-0-	[35]	35	-0-	[35]
TOTAL		<u>\$41,835</u>	<u>\$64,339</u>	<u>\$22,504</u>	<u>\$33,835</u>	<u>\$58,534</u>	<u>\$24,699</u>

NOTES:

[*] The recovery of damages is deposited to the Treasurer's Office and recorded in the books as a General Fund Revenue.

[**] These are fees collected for the inspection of overhead line wires and rental of Fire Alarm Boxes from private companies. The fees are also deposited to the treasurer's Office and recorded in the books as a General Fund Revenue.

In addition to the accounting functions, the Division is also responsible for certain administrative and personnel support services.

PERSONNEL

1 - 1424 Clerk Typist

1 - 1452 Executive Secretary II

FUNCTION

To transcribe correspondence from the General Manager's Office.

To provide personnel services for the Department and handles personnel matters with the Civil Service Commission.

To Provide clerical and typing support services.

To transmit messages to the Parking Meter Repairers in the field to expedite repairs of Parking Meters.

To perform daily trips to the City Hall to deposit checks and pick up and deliver mail and documents.

ADMINISTRATION AND SUPPORT SERVICES DIVISION

PROGRAM OBJECTIVE [MBO]

ACTUAL PERFORMANCE

To accomplish 80% of the Department's objectives

80% *

To effectively collect 40% of all damage claims involving Traffic Signals, Parking Meters and Police & Fire Alarm facilities.

70%

To effectively provide 75% of requested monthly repairs in support of all programs including buildings, facilities and automobiles.

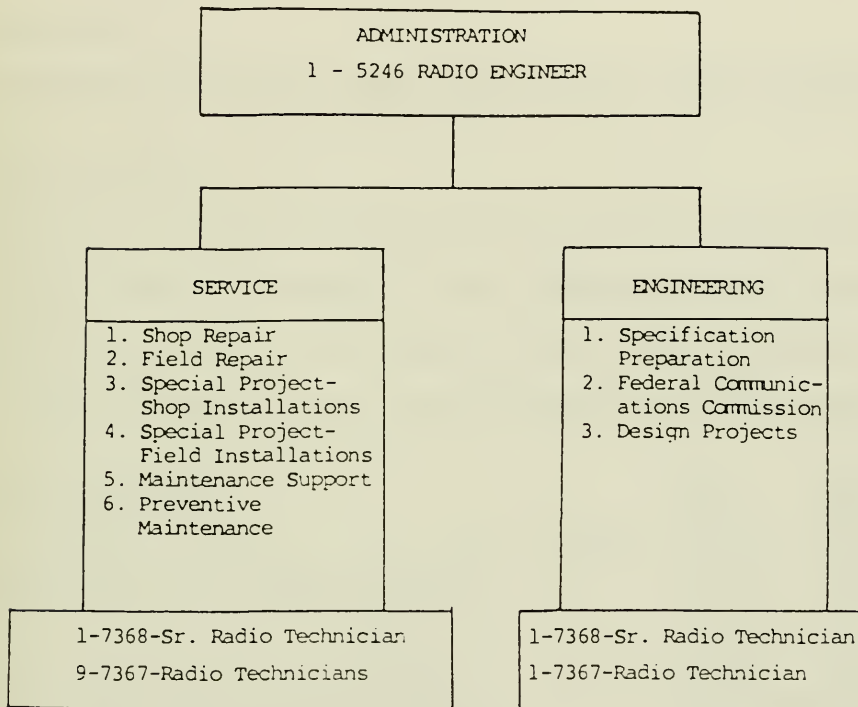
75%

Note [*] The overall actual performance by the Department has been affected by the following two (2) areas:

- (1) There were 2,427 Radio/Electronic units [the majority from the Police & Fire Depts.] added to the preventive maintenance program, without a corresponding increase of Radio Technicians has caused one MBO objective not to be fully accomplished. To effectively improve the situation, a request for additional Radio Technicians was included in the Budget for Fiscal Year 1986-1987 but was denied.
- (2) Objectives were not met because manpower was diverted into additional meter installations, changing locks and converting automatic meters to manual meters. Refer to page 2, second paragraph, "Parking Meter Maintenance and Repair" for more detailed explanation.

However, all other objectives have been satisfactorily achieved.

RADIO-ELECTRONIC COMMUNICATIONS SERVICES PROGRAM



RADIO ELECTRONIC
COMMUNICATIONS SERVICES PROGRAM

PROGRAM GOAL:

TO EFFECTIVELY CONSULT, PLAN, DESIGN, MANAGE AND SERVICE RADIO ELECTRONIC COMMUNICATION SYSTEMS FOR VARIOUS DEPARTMENTS OF THE CITY & COUNTY OF SAN FRANCISCO.

PROGRAM OBJECTIVES:

- To complete the design of 60% of the Engineering Projects within schedule and budget.
- To complete preventive maintenance of 30% of fixed Radio/Electronic Equipment annually.
- To keep an average of 90% of all Portable and Mobile Radio/Electronic units operational.
- To restore to service 80% of the fixed Radio/Electronic Equipment within 4 hours of reported failure.

PROGRAM PERFORMANCE:

	<u>84/85</u>	<u>85/86</u>
- Engineering design projects completed within schedule	72.60%	73.07%
- Fixed Radio/Electronic Equipment preventive maintenance completed within schedule.	23.69%	16.53%
- Portable Radio/Electronic units operational	99.66%	99.48%
- Mobile Radio/Electronic units operational	99.63%	99.67%
- Fixed Radio/Electronic equipment restored to service within 4 hours of reported failure.	99.24%	96.57%

All program objective targets have been met or exceeded this year with the exception of the preventive maintenance target. This target was not met due to the lack of personnel --three [3] additional Radio Technicians were requested for this Fiscal Year and were denied; also a position remained vacant for more than a quarter of the year due to an employee retirement, and a combination of 115 new, additional, fixed, mobile and portable equipment was added to our maintenance workload this year by various City Departments.

RADIO ELECTRONIC COMMUNICATIONS SERVICES PROGRAM ACTIVITIES

Radio Engineering and Servicing are the two major functions of the Radio Electronic Communications Services Program.

General responsibilities are to consult, plan, design, manage and service the Radio Electronics Communications Systems for the various Departments of the City and County of San Francisco.

This Division provides expertise and services through estimates, specifications, equipment procurement, F.C.C. licensing, installation, inspection, maintenance, repair and service of any City Radio Electronics Communications System. This work is done in conformance with Federal Communications Commission Rules & Regulations and Industry Standards. Special electronics projects, funded by inter-departmental Work Orders, are also part of this Division's responsibility.

SERVICING:

1- Shop repair activity:

Services malfunctioning Portable and Mobile Radio Electronic Units and vehicular Radio Electronic Systems brought into the Shop from operational systems:

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] Vehicle Systems Serviced	3410	3559
[B] Portable & Mobile Units Serviced	2647	2502

2- Field repair activity:

Maintains fixed field Radio & Electronics equipment at various locations throughout the City.

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] Fixed units serviced	2567	2178

3- Special Projects:

Shop installation activity:

Perform installation of new and renovated Mobile Radio Electronic Equipment. Inspects and accepts new Portable & Mobile Radio Electronic Equipment before operational use.

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] Mobile Units installed	424	217
[B] Mobile Units removed	277	232
[C] New Portable/Mobile Units inspected and accepted.	741	54

4- Special Projects:

Field installation activity:

Pre-test, inspect, install, adjust & accept new fixed Radio Electronic Equipment and Systems at various field locations throughout the City.

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] New fixed equipment pre-tested inspected, and accepted	68	61
[B] New fixed system/equipment installation adjustment & acceptance. [Non-recurring projects completed]	5	5

5- Maintenance support activity:

Service record data is kept for all Portable, Mobile and fixed equipment systems. Stock records and levels are kept to assure availability of necessary items to support the maintenance and repair of all fixed, Mobile and Portable Radio Electronic Equipment. Calibration records are kept for all fixed, Mobile and Portable equipment.

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] Service Order Record Data	9751	9300
[B] Support Requisitions	314	308
[C] F.C.C. Calibrations	2649	2364

6- Preventive Maintenance:

Preventive maintenance is performed on all fixed Radio & Electronic Equipment.

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] Preventive maintenance of fixed units	1939	1393

ENGINEERING

[1] Engineering specification preparation activity:

Develop written specifications that identify the parameters of equipment needed to meet communications requirements. Prepares cost estimates for system design projects and equipment procurement. Performs preliminary studies and field surveys prior to development of specifications.

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] Specifications	41	43
[B] Estimates	92	81

[2] F.C.C. Licensing Activity:

Applies to the Federal Communications Commission for authority to install and operate fixed and Mobile Radio Equipment. Obtains frequency coordination and approval of area communications Agencies. Reviews and modifies licenses as required.

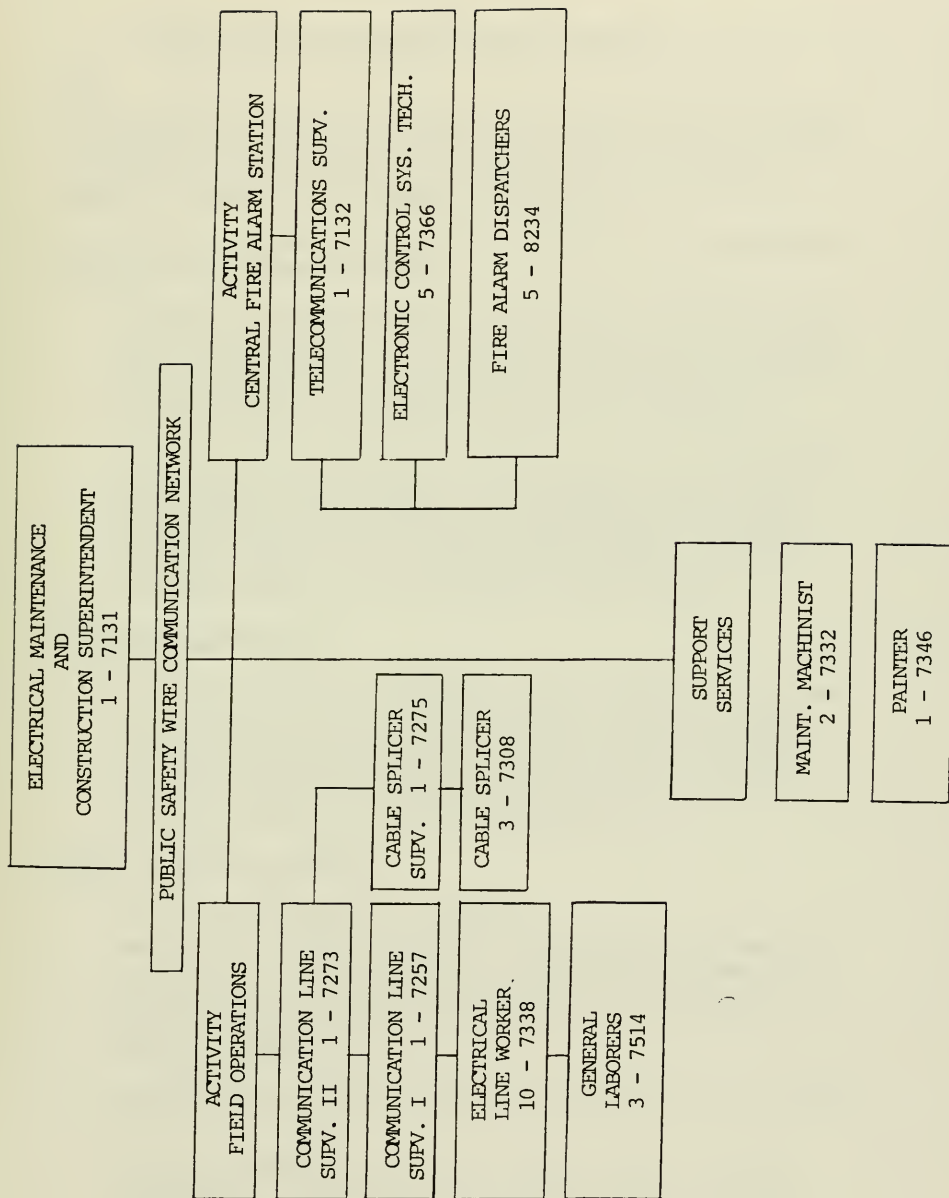
<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] F.C.C. applications	13	55
[B] F.C.C. coordinations	30	59
[C] F.C.C. renewals	56	31

[3] Engineering design projects activity:

Consults, plans, designs, implements and manages various new projects for the changing needs of City Departments.

<u>Program Output:</u>	<u>84/85</u>	<u>85/86</u>
[A] Projects completed	5	2

CHART A



PROGRAM

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK

GOAL

To effectively maintain Public Safety Wire Line Circuits in order to provide timely fire protection, Police and emergency responses in compliance with requirements of National Fire Protection Association regarding maintenance and testing.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Operation and maintenance of the Central Fire Alarm Station on a 24-hour basis. This activity includes maintenance and service of the computer-assisted Fire Alarm Dispatch System with teletype and voice announce Consoles in 44 Fire Stations and associated agencies of the Fire Department.

Operation and maintenance of the City's Fire and Police Non-Radio Communication Systems. This activity consists of maintenance of the Fire Box Alarm System, Police Call-Box System, Police Private Telephone System, Mayor's Emergency Telephone System, Air Raid Siren System along with the related Overhead Line and Underground Cable System.

MANAGEMENT DATA SYSTEM:

This Data System is interfaced with the computer main frame at the Central Fire Alarm Station using Department Cable pairs to Fire Department Headquarters. CRT data terminals and line printers are used by various bureaus of the Fire Department Administrative Headquarters to send, store or retrieve data from the computer main frame.

CENTRAL FIRE ALARM STATION:

Activities include the following:

Monitors Fire Box Alarm Panels connected to all street Fire Alarm Boxes. Alarms received are transmitted through the computer which provides the Fire Department Bureau of Communications Assignment Officer with a recommended assignment for dispatch.

Monitors hot lines and registers from private Central Office Fire Alarm Companies.

Tests 48 circuits connected to the Air Raid Siren Warning System daily. Tests Sirens on a weekly basis to insure satisfactory operation. Conducts scheduled tests of Fire Alarm Box circuits, dispatch circuits and emergency power equipment.

Coordinate test and repair activities with field personnel.

PUBLIC SAFETY

Field operation activities consist of the following:

Repair and maintenance of the City's Fire Alarm Box System along with the System's related overhead and underground circuits.

Repair and maintenance of the Police Ring-in Telephone System along with the System's related wiring.

Routine replacing of overhead lines and underground cables on an "as needed" basis.

Testing of the City's Fire Alarm Box System, Auxiliary Fire Alarm Systems connected to 130 Public Schools and supervision of auxiliary connections from various public buildings.

Expansion of the Mayor's Emergency Telephone System — San Francisco General Hospital, Station 21 have been added.

This operation also has personnel in the field on a 24-hour basis to respond to complaints on Fire Alarm Boxes, Fire Station equipment, Police telephones, Traffic Signals or any other complaint involving City property. This trouble shooting detail is available for immediate response to most emergency situations throughout the City.

PROGRAM OBJECTIVES

% of Central Fire Alarm complaints responded to in below 1 hour.
Objective achieved (95%). The goal of 95% was met.

% of Fire House complaints responded to in 1 hour.
Objective achieved (95%). The goal of 95% was met.

Reliability of Fire Alarm Boxes.
Objective achieved (99%). The goal of 99% was met.

Testing of Fire Alarm Boxes.
Objective achieved (12,709) was above the annual goal of 12,000.

All of the Department's Public Safety Program Goals were met during FY 1985/86 despite extensive flooding and rain conditions. For two consecutive years, personnel within the Public Safety Program worked under very adverse and hazardous conditions to maintain the reliability of the Department's facilities.

CENTRAL FIRE ALARM STATION

In addition to the Program Objectives, other activities carried out by personnel at the Central Fire Alarm Station are:

24-hour Radio contact with field personnel for immediate response to emergencies.

Summary of complaints received by personnel during Fiscal Year 1985-1986:

Fire Alarm Circuits	540
Fire Alarm Boxes	29
Police Call Box & Locals	13
Fire Station Line trouble	80
SA/TPE Fire Station Equipment *	429
SA/TPE - CFAS **	191

Note: * Teletype & Voice Announce Consoles in Fire Stations.

** Command & Control Equipment - CFAS

In addition to the Program Objectives, other activities carried out by personnel in the Public Safety Program field operations were:

FIRE ALARM AND POLICE MAINTENANCE

Installed 1 new Fire Alarm Box.
Relocated 2 Fire Alarm Boxes.
Modernized 8 Fire Alarm Boxes.
Repaired 107 Fire Alarm Box movements in the Shop.
Repaired 43 Fire Alarm Boxes in the field.
Made repairs to damaged Fire Alarm Boxes at 31 locations.
Replaced Fire Alarm Box standards on routine at 51 locations.
Tested 11,969 Fire Alarm Boxes in the field.
Tested 962 School Fire Alarm Boxes in the field.
Replaced old steel pole risers with new PVC conduit and new wire at 17 locations.

TRAFFIC DAMAGE AND ROUTINE MAINTENANCE

Assisted the Traffic Division, in the field, at 120 locations.

OVERHEAD LINES AND UNDERGROUND CABLES

Transferred facilities to new PG&E poles at 120 locations.
Replaced X-arms at 105 locations.
Performed routine maintenance to overhead lines at 338 locations.
Performed routine maintenance and cleared trouble in Fire Alarm circuits at 148 locations.
Replaced defective cables or installed cable in new areas (21,456 feet of various size cable).
Completed splices including 200 pair lead at 164 locations.
Repaired underground cable damaged by "third parties" at 4 locations.
Installed 345 feet of various size conduit in City streets.

RADIO TOWER MAINTENANCE [TWIN PEAKS]

Relamped Towers #1, #2 and #3 as required.
Replaced Guy wires to 35 wood poles at Radio Station.
Replaced lights on existing street lights on Towers as required.

AIR RAID SIREN SYSTEM

Converted 48 siren locations from PT&T lines to radio control lines.

Installed of a Neutral wire in 20 overhead services and in 10 underground services.

Removed old 45' pole and siren installation and relocated with complete new installation at Fire House Station 17.

Replaced siren cabinets at 4 locations.

Tested the City's new Air Raid Siren System.

FIRE HOUSE MAINTENANCE

Responded to 6 Fire House Station complaints.

Cleared trouble on 44 command and control circuits to Fire House stations.

THE FOLLOWING WORK ORDER PROJECTS WERE WORKED ON

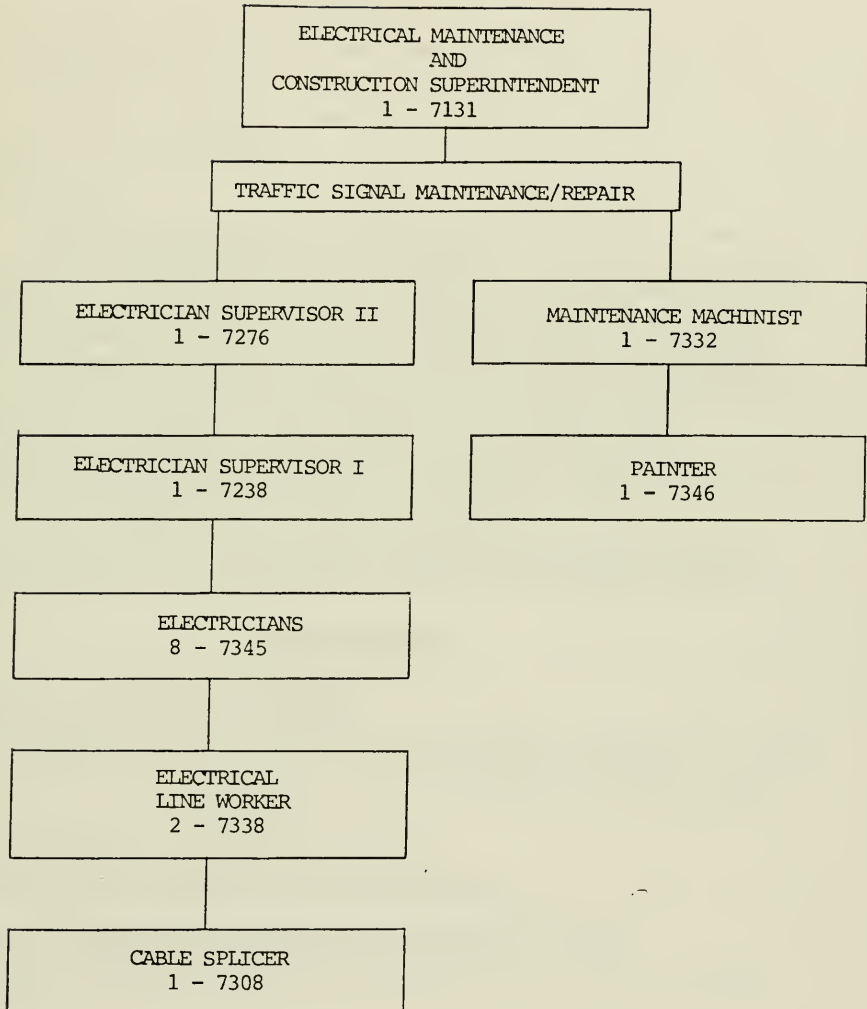
W.O. #60430 - Air Raid Sirens
W.O. #00055 - Air Riad Sirens
W.O. #61246 - Upper Ashbury Stage I & II
W.O. #01141 - Hall of Justic (Bryant Street new cable)
W.O. #01128 - Legion of Honor - overhead to underground
W.O. #79030 - Installed a Burglar Alarm System to the SFPD
Pistol Range.
W.O. #61046 - Installed a Burglar Alarm System to the SFPD
Building, 350 Amber Street.
W.O. #50501 - Clean Water project
W.O. #61082 - Phone maintenance at the Hall of Justice, 6th
and 7th floor Jails.

THE FOLLOWING SPECIAL JOBS WERE COMPLETED

S.J. 124 - School Fire Alarm Box Auxiliary Testing
S.J. 404 - Relocated Fire Alarm Box at Spear/Howard Streets
S.J. 407 - Relocated Fire Alarm Box at Battery/Clay Streets

Our continuing preventive maintenance program reflects fewer complaints and better service.

CHART B





PROGRAM

TRAFFIC SIGNAL MAINTENANCE/REPAIR

GOAL

To effectively maintain Traffic Signals along with associated underground cables on a twenty four hour basis in order to provide for efficient traffic flow.

This program is under the direction of the Electrical Maintenance and Construction Superintendent.

Activities are:

To provide field service, installation, Shop repair and overhaul of 961 intersections of Traffic Signals.

This program is funded from gas tax revenue via a Work Order from the Department of Public Works. Due to decreases in gas tax revenues over the past several years, funding for this program has not kept pace with increases in the cost of materials or wage increases. The end result being that the Traffic Shop is continuing to operate with a reduced staff. Priorities were established to make better use of personnel capabilities. Prime emphasis was placed on prompt response to complaints. Prompt response and more importantly, prompt repairs reduces the length of time an intersection remains in a condition which can be hazardous to the Public.

Prime emphasis was placed on prompt response to Citizen complaints, and this objective was achieved in spite of staffing and workload problems.

PROGRAM OBJECTIVES

Number of intersections relamped

Objective achieved [817] exceeded the goal of 740.

This program was instituted to bring the relamping sequence to a more normal relamping schedule based on the life span of a Traffic Signal Lamp.

% of complaints responded to in one hour

Objective achieved [87%]. Goal of 87% was met.

Number of Dispatchers/Controllers overhauled or serviced

Objective achieved [463] was above the goal of 400. This objective was met.

In addition to the Program Objectives, other activities carried out by personnel in the Traffic Signal Program were:

Responded to 2,371 complaints on a 24-hour basis.

Made repairs to damaged equipment at 109 locations.

Made repairs to damaged conduits, and replaced wiring at 33 locations.

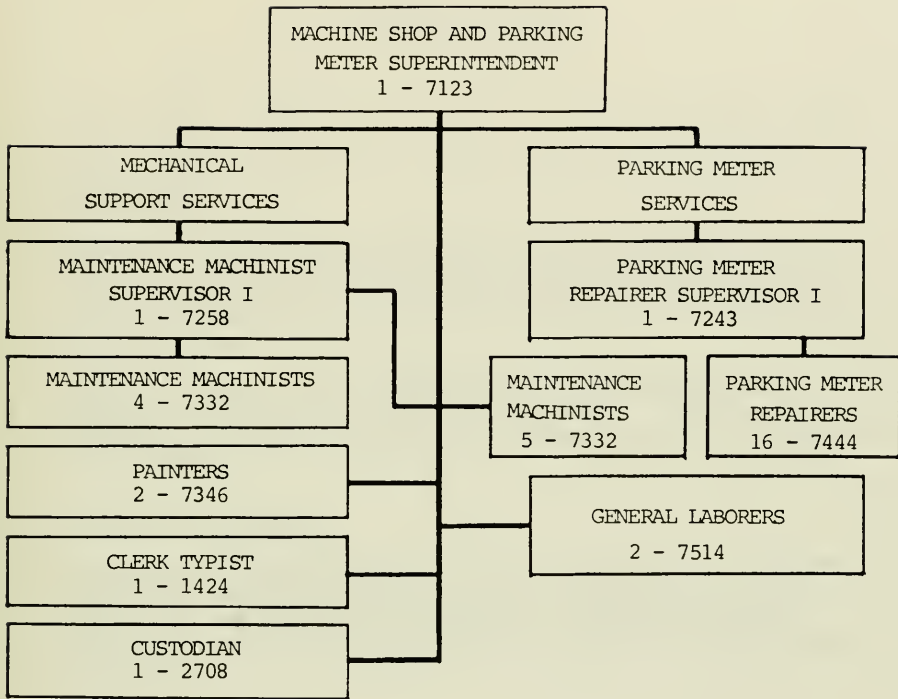
Replaced Signal Heads at 136 locations.

Made relocations, installations and modifications under Special Jobs at:

- (1) Market & 5th - installed temporary signals NE, SW
- (2) Alemany & Crescent - installed 2-way signal SW
- (3) Fell & Laguna - installed 3 phase controller
- (4) 2nd & Folsom - installed temporary signals SE
- (5) O'Farrell & Taylor - installed temporary signals SE
- (6) 2nd & Harrison - installed temporary signals SW
- (7) 3rd & Army - installed new conduit's NCI, SCI
- (8) Geary & Stockton - installed signals NE
- (9) Calif. & Battery - relocated controller and pole SW
- (10) Pine & Montgomery - installed temporary signals SE,
changed controller to Flash-Don't-walk
- (11) 6th & Bryant - installed pedestrian signals NW & SE
- (12) Market & Clayton - installed 5 section signals NCI
- (13) Pine & Front - installed temporary signals SE
- (14) Market & Castro - installed 12" signals NE
- (15) Market & Gough - installed 1 way signal SE(E)
- (16) 1st & Mission - installed temporary signal SW

MECHANICAL DIVISION

FISCAL YEAR 1985-1986

ALLOCATION OF PERSONNEL IN SUPPORT OF VARIOUS PROGRAMS

	<u>PUBLIC SAFETY</u>	<u>PARKING METERS</u>	<u>TRAFFIC</u>	<u>ADMIN.</u>
M.S. AND P.M. SUPT.				1
MAINT. MACH. SUPV. I				1
P.M. REPAIRER SUPV. I		1		
MAINT. MACHINISTS	2	5	1	1
P.M. REPAIRERS		16		
PAINTERS	1		1	
GENERAL LABORERS		2		
CUSTODIAN				1
CLERK TYPIST				1

MECHANICAL DIVISION

FISCAL 1985-1986

The following mechanical services were performed in support of the Public Safety, Traffic Signal, Radio and Administration programs:

MANUFACTURED

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete Fire Alarm Boxes in the new Underground Districts. New and replacement parts for Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens and Instruments were manufactured in the Machine Shop as needed.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

MAINTENANCE AND REPAIR

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the Public.

PAINTING

Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the Shop and field. Due to a shortage of personnel, we are on a four (4) to five (5) year painting cycle, rather than a two (2) year cycle recommended for some of the above equipment.

OTHER DUTIES

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all Mechanical equipment were kept.

MECHANICAL DIVISION

MANUFACTURE, MAINTENANCE AND REPAIR

FISCAL 1985-1986

The Mechanical Division under the direction of the Machine Shop and Parking Meter Superintendent has full responsibility for the Parking Meter program and is a support service for the Departments' other programs and functions, which includes the maintenance, repair and manufacturing of all mechanical equipment under the jurisdiction of the Department of Electricity.

The equipment includes the following:

- 2045 - Fire Alarm Boxes
- 471 - Police Call Boxes
- 85 - Desk Set Phones
- 964 - Traffic Signal Intersections

All mechanical equipment at the Central Fire Alarm Station, Central Radio Station, and the Plant at 901 Rankin Street including four (4) emergency gas and diesel driven generators.*

*Generators at Central Fire Alarm Station (2), Central Radio Station (2).

- 17,391 - Parking Meters
- 48 - Emergency Warning Sirens
- 55 - Pieces of gas driven equipment, 51 mobile and 4 stationary.
The major repairs and servicing of the above equipment were done at the Purchasing Shops.

The maintenance of three (3) Departmental Buildings; the Plant at 901 Rankin Street, Central Fire Alarm Station at 1003 Turk Street and the Central Radio Station on Twin Peaks was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through Contractual services.

MECHANICAL DIVISION
SUMMARY OF ACTIVITIES
FISCAL 1985-1986

	<u>Total Numbers</u>
Manufactured Fire Alarm Boxes, parts and related equipment.	275
Repaired Fire Alarm Boxes, parts and related equipment.	420
Manufactured Police Call Boxes and related equipment.	650
Repaired Police Telephones and related Communications equipment.	81
Manufactured Traffic Signal Parts and Special Tools.	742
Repaired Traffic Signals, parts and related equipment.	562
Manufactured and repaired miscellaneous Air Raid Siren parts and related equipment.	27
Manufactured and repaired miscellaneous Radio equipment items.	133
Miscellaneous items manufactured and repaired for Plant and vehicular equipment.	560
Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	521
All registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk St. [plus related equipment].	1,526
Emergency Generators serviced and tested at Central Radio Station and McLaren Park. [plus related equipment].	130

MECHANICAL DIVISION

PAINTING

FIELD AND SHOP

FISCAL 1985-1986

The following items have been hand prepared or sandblasted, primed and finish coated:

<u>FIRE ALARM SYSTEM</u>	<u>Total Numbers</u>
--------------------------	----------------------

Fire Alarm Boxes - Field and Shop	321
-----------------------------------	-----

Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc. - Field & Shop	937
-----------------------------------------------------------------------------------------------	-----

POLICE COMMUNICATIONS

Police Call Boxes - Field & Shop	128
----------------------------------	-----

Miscellaneous items - Shop	36
----------------------------	----

TRAFFIC SIGNALS

Vehicular Signals - Field & Shop	504
----------------------------------	-----

Signal Controllers - Field & Shop	97
-----------------------------------	----

Walk-Wait Pedestrian Signals - Field & Shop	82
---------------------------------------------	----

Signal Posts, Poles, etc. - Field & Shop	142
------------------------------------------	-----

Traffic Signal Visors & Louvers - Field & Shop	84
------------------------------------------------	----

MISCELLANEOUS

Cabinets, Siren Parts, Ladders (oiled-shellacked) Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, Touch up, etc.	84
---------------------------------------------------------------------------------------------------------------------------------------------	----

Painting at the Plant at 901 Rankin St. at the Central Fire Alarm Station at 1003 Turk St. and the Central Radio Station on Twin Peaks.	3
-----------------------------------------------------------------------------------------------------------------------------------------------	---

MECHANICAL DIVISION

PARKING METER PROGRAM

FISCAL 1985-1986

GOAL:

To effectively maintain and repair Parking Meters in order to maximize revenues.

PROGRAM OBJECTIVES

To insure effective field service and inspection to 73% of the City's 17,300 Parking Meters daily.

To insure accuracy, dependability and increase years of service by performing a complete overhaul in the Shop to 40% of the Parking Meter mechanisms, annually.

To complete 70% of the Parking Meter Post damages, repairs and installations daily.

PROGRAM OUTPUT

	<u>1984/85</u>	<u>1985/86</u>
% of Meters serviced daily	68%	67%
% of Meters overhauled	30%	38%
% of Meter Posts installed daily	68%	63%

Objectives were not met because manpower was diverted into additional meter installations, changing locks and converting automatic meters to manual meters. (See page 2 for explanation.)

Revenues from Parking Meters for Fiscal Year 1985-1986 was \$6,422,926.

MECHANICAL DIVISION

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

FISCAL YEAR 1985/86

NATURE OF TROUBLE#7444 - PARKING METER REPAIRER

Jammed Intentionally.....	197,625
Cases Cleaned.....	13,020
Damaged Meters Removed.....	65
Exchange Heads.....	48
Exchange Mechanisms.....	3,173
Exchange Mechanisms for Cleaning.	1,381
Exchange Timers.....	420
Hoods Removed.....	28,103
Lock Open Coin Doors.....	2
Tighten Heads.....	2,048
Mechanical Adjustment Mechanisms.	29,894
Mechanical Adjustment Cases.....	10,012
Meters Installed.....	347
Meters Replaced.....	994
Meters Removed from Service.....	291
Temporarily out of Service.....	304
O.K. Requested Inspections.....	7,641
Replace Coin Glass.....	684
Replace Coin Lock.....	6,500
Replace Parts to Cases.....	6,386
Replace Parts to Mechanisms.....	7,342
Replace Signal Glass.....	27
Stuck Coins.....	20,498
Service Coin Door.....	294
Stuck Indicators.....	1,531
Stuck Signals.....	2,010
Stuck Timers.....	4,091
Unwound Main Springs.....	2,750
Winding Hole Plugged.....	24
Replace Missing Coin Can.....	136
Exchange Defective Coin Can.....	690

WORK ON POSTS:#7444 P.M. REPAIRER

Straightened..... 1,349

#7514 LABORER

Straightened..... 988

Removed..... 67

Relocated..... 229

Installed..... 609

Replaced..... 398

Reset..... 613

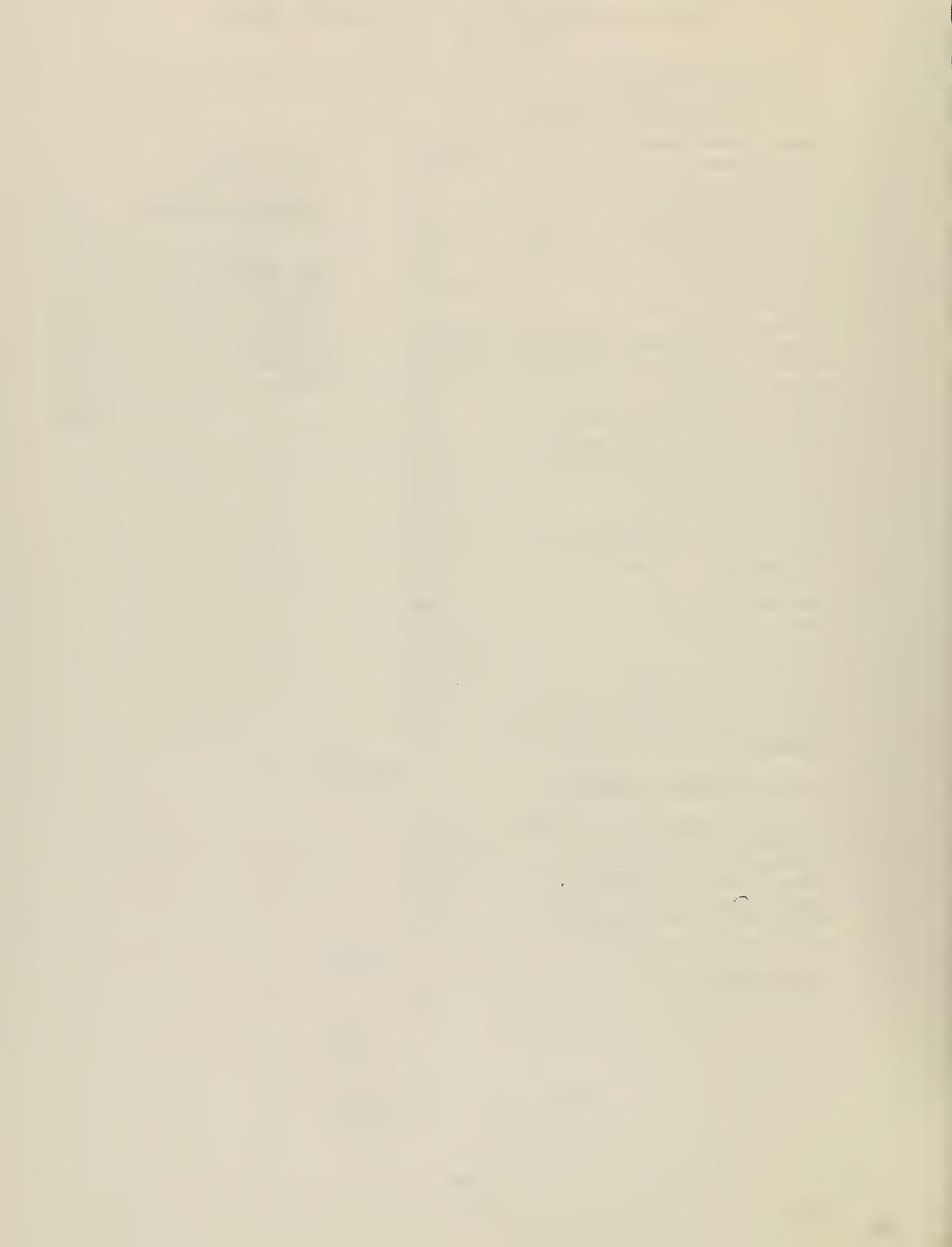
4,253360,972#7332 MAINTENANCE MACHINIST

Mechanisms Cleaned & Overhauled.	6,746
Shop Repairs on Cases.....	1,478
Exchange Mechanisms.....	1,478
Prepare Cases [New Meters].....	2,339
Repair Cases in Field.....	84
Repair Collection Equipment.....	53
Minor Meter Repairs.....	8,840

21,039#7346 PAINTER

Meters Painted..... 820

8204,253TOTAL 387,084

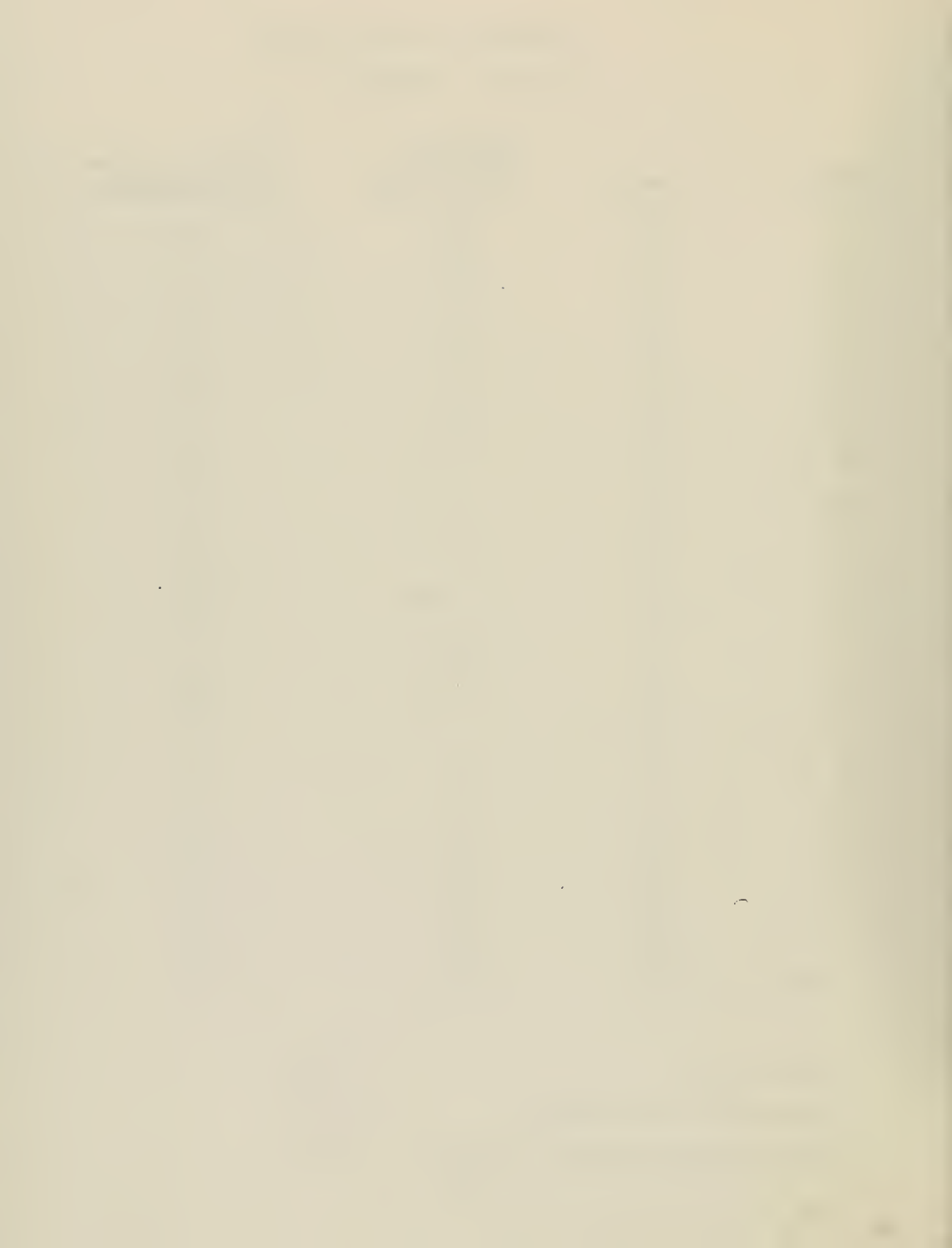


INVENTORY OF PARKING METERS

MONTH OF JUNE 1986

<u>District</u>	<u>Number</u>	<u>Number in off-street Parking Lots</u>	<u>Number of meters out of service</u>
A	<u>1,142</u>	<u>69</u>	<u>3</u>
B	<u>976</u>	<u>165</u>	<u>2</u>
C	<u>905</u>	<u>-</u>	<u>-</u>
D	<u>944</u>	<u>46</u>	<u>3</u>
E	<u>802</u>	<u>-</u>	<u>3</u>
F	<u>1,211</u>	<u>163</u>	<u>-</u>
G	<u>915</u>	<u>-</u>	<u>6</u>
H	<u>861</u>	<u>-</u>	<u>6</u>
I	<u>652</u>	<u>-</u>	<u>4</u>
J	<u>842</u>	<u>-</u>	<u>10</u>
K	<u>1,064</u>	<u>-</u>	<u>2</u>
L	<u>666</u>	<u>27</u>	<u>-</u>
M	<u>849</u>	<u>-</u>	<u>12</u>
N	<u>985</u>	<u>-</u>	<u>3</u>
O	<u>679</u>	<u>73</u>	<u>-</u>
P	<u>711</u>	<u>20</u>	<u>-</u>
R	<u>678</u>	<u>312</u>	<u>21</u>
S	<u>861</u>	<u>36</u>	<u>2</u>
T	<u>698</u>	<u>39</u>	<u>10</u>
Totals	<u>16,441</u>	<u>950</u>	<u>87</u>

OVERALL TOTAL	<u>17,391</u>
LESS METERS OUT OF SERVICE	<u>87</u>
ACTUAL NUMBER OF METERS IN SERVICE	<u>17,304</u>



DEPARTMENT OF ELECTRICITY

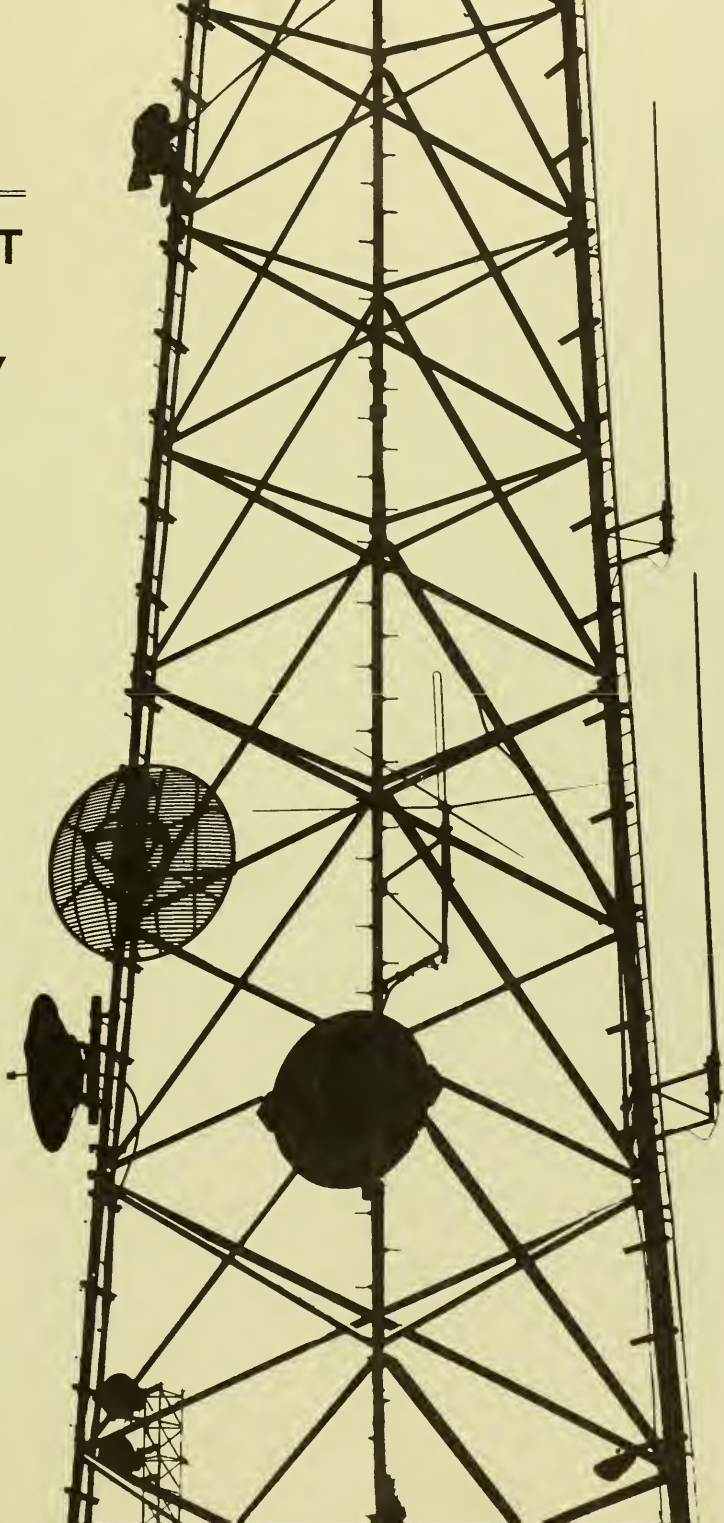
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ANNUAL REPORT 1986-1987





ANNUAL REPORT
DEPARTMENT OF ELECTRICITY
CITY AND COUNTY OF SAN FRANCISCO

FISCAL YEAR 1986-1987

HON. DIANNE FEINSTEIN
MAYOR

RUDOLF NOTHENBERG
CHIEF ADMINISTRATIVE OFFICER

JULES T. BECKLEY
GENERAL MANAGER



November 6, 1987

Mr. Rudolf Nothenberg
Chief Administrative Officer
Room 289, City Hall
San Francisco, CA 94102

Dear Mr. Notherberg:

In accordance with the provisions of Section 3.501 of the Charter of the City and County of San Francisco, I am pleased to submit the Annual Report of the Department of Electricity for Fiscal Year 1986-87.

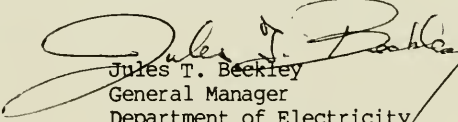
The Department continues to fulfill its responsibilities and performs its functions through organization into four divisions: Administration, Electrical, Mechanical and Radio.

This report reflects the Department's goals, performance objectives and measures for the 1986-87 Fiscal Year.

The cost of operating the Department of Electricity during Fiscal Year 1986-87 was \$5,595,970 or 5.05% higher than for the prior Fiscal Year due mainly to salary standardization.

I sincerely appreciate the help and understanding extended by you and your staff during this past year.

Respectfully submitted,


Jules T. Beekley
General Manager
Department of Electricity

JTB/jn

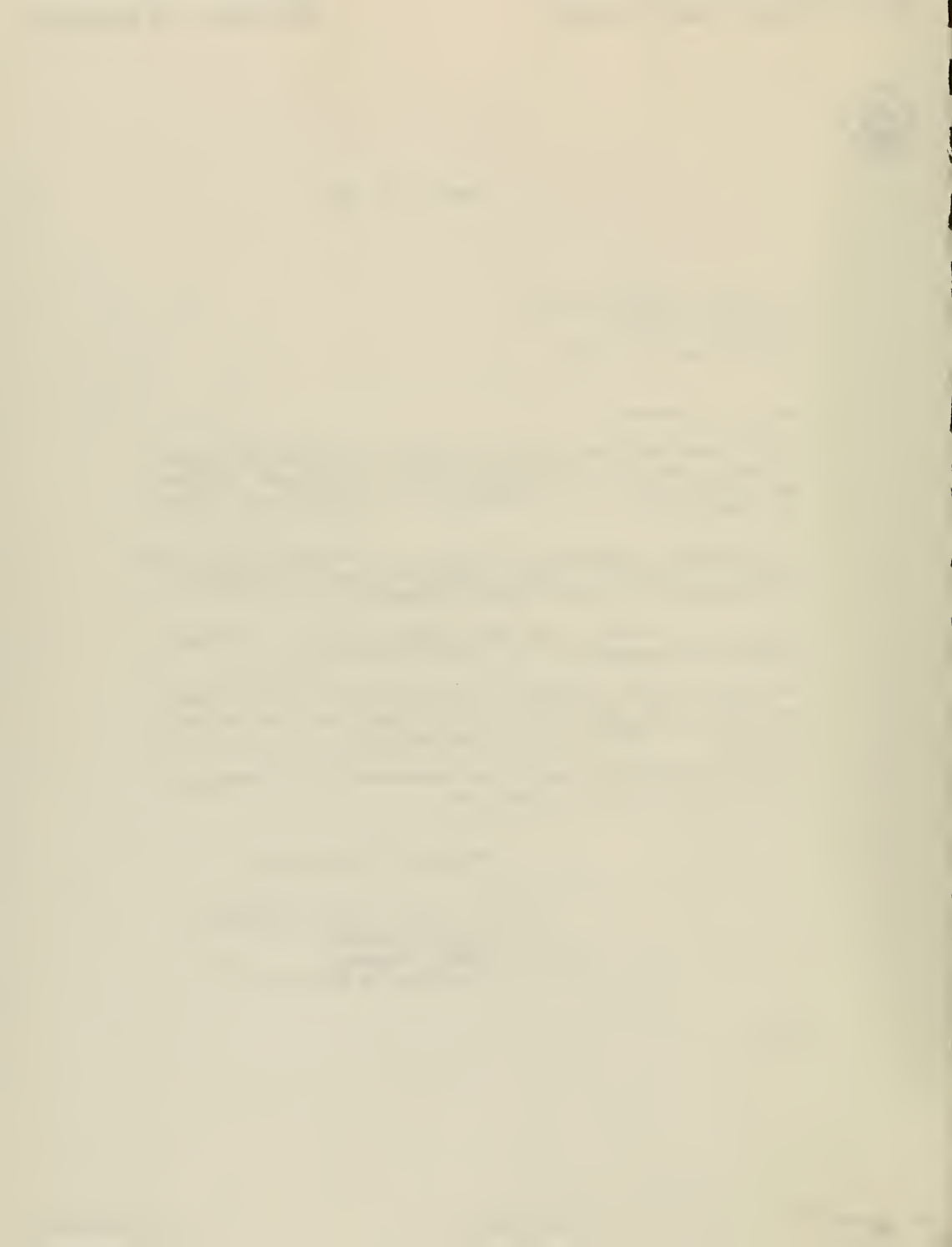


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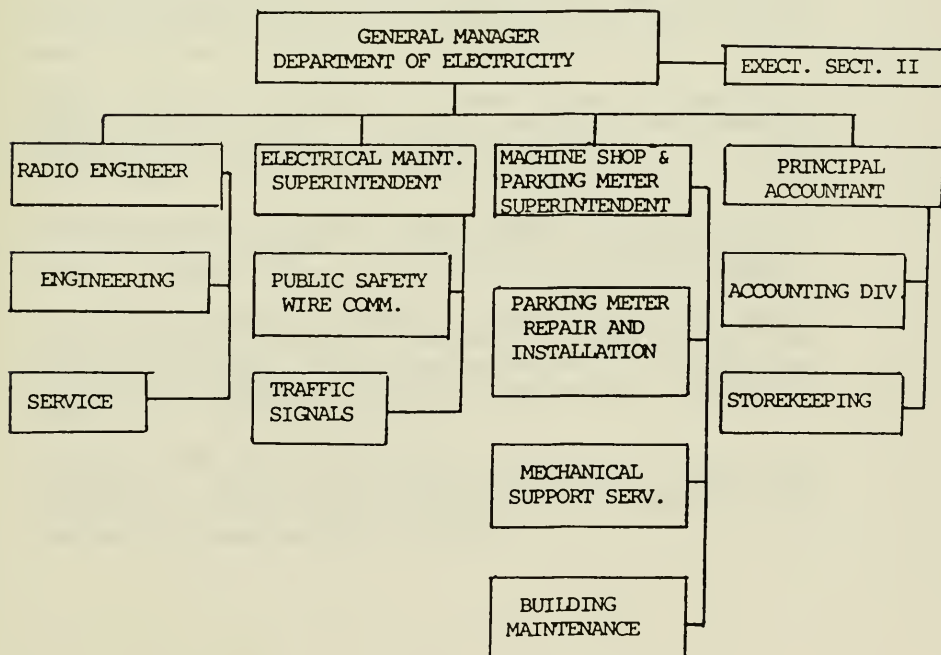
The Department of Electricity is a General Service Department whose main function is to provide service in the areas of:

- Radio Communications
- Wire Lines / Teletype Communications
- Fire Alarm Box Systems / Dispatch and Command and Control Functions
- Overhead and Underground Wire and Cable Systems
- Air Raid Siren Systems
- Traffic Signals
- Parking Meters, and
- Other Ancillary Support Functions

Effective management and coordination is provided by the General Manager and a Division Head in charge of each program.

Major Programs are:

- Administration / Management & Departmental Support Services
- Radio Communications
- Public Safety Wire Communications
- Traffic Signal Maintenance / Repair
- Parking Meter Maintenance & Repair





HIGHLIGHTS OF THE DEPARTMENT OF ELECTRICITY'S
OPERATING BUDGET FOR FISCAL YEAR 1986-1987

ADMINISTRATION AND SUPPORT SERVICES DIVISION

During this Fiscal Year 1986-87, the Department has purchased a Wang PC to automate the manual record keeping of the accounting section. Work orders and expenditure budget of the five programs of the Department have been programmed into the system. The schedules and summaries produced from the PC are supportive of the Controller's FAMIS Reports.

PARKING METER MAINTENANCE AND REPAIR

There were 1,187 new parking meter installations this year, bringing the total number of meters to 18,578.

It was just a few years ago when there were only 15,500 meters and 19 Parking Meter Repairers to service them. The meters have been increased by more than 3,000 while at the same time the repair staff has been reduced by 5 positions.

Impact: The daily field service has been reduced from 94% of the meters to 67% on a daily basis. This results in less operating meters, fewer available parking spaces which increases traffic congestion and contributes to revenue losses.

During the year we completed a meter conversion project that was started in the prior year. We converted the remaining 5,300 of the 6,300 automatic meters to a more reliable type manual meter.

Also during the year a considerable amount of time was spent repairing vandalized meters in the Mission / Valencia area. We worked closely with the Police Department in an effort to apprehend the perpetrator. This year there has been a noticeable increase in the amount of vandalism.

There were also some coin thefts during the year. We put a lot of effort into monitoring the meter coin cans and working with the Police. Some arrests were made which seems to have considerably slowed down the pilfering.

THE HISTORY OF THE
CITY OF BOSTON

FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME

BY
JOSEPH NEALE

IN TWO VOLUMES.
VOL. I.

BOSTON:
PUBLISHED BY
JOSEPH NEALE, 10 NASSAU ST.

RADIO ELECTRONIC COMMUNICATIONS SERVICES

During the past year the radio division has been engineering and preparing specifications for a City-wide microwave system. It is anticipated that bids will be received, contract award made, and installation of the system commence before the end of the next fiscal year.

Specifications for the procurement and installation of a CCTV security system for the Sheriff's jail facility in San Bruno have been prepared with bids, award and installation to be completed next fiscal year.

Engineering and placement of transmitting and receiving equipment for improved Police Zone-1 PIC portable radio coverage at the leased Sutro Tower location has been completed.

Additional satellite receiver systems have been specified, purchased and installed at various locations throughout the City to improve existing Health Department EMS and Police Portable Radio Systems Communications coverage.

200 Police vehicular UHF radio transceivers were specified, bid, awarded and received. Installation will proceed as requested by Police need and will continue into next fiscal year.

TRAFFIC SIGNAL MAINTENANCE AND REPAIR

Traffic Signals were placed in operation at the following new intersections:

- | | | |
|---|-----------------------------------------|---------|
| - | Embarcadero Center & Davis - Cross Walk | 9-15-86 |
| - | Embarcadero Center & Front - Cross Walk | 9-15-86 |
| - | Embarcadero Center & Drumm - Cross Walk | 9-15-86 |
| - | Brotherhood & Chumasero | 3-23-87 |
| - | Geneva & Carter | 3-24-87 |

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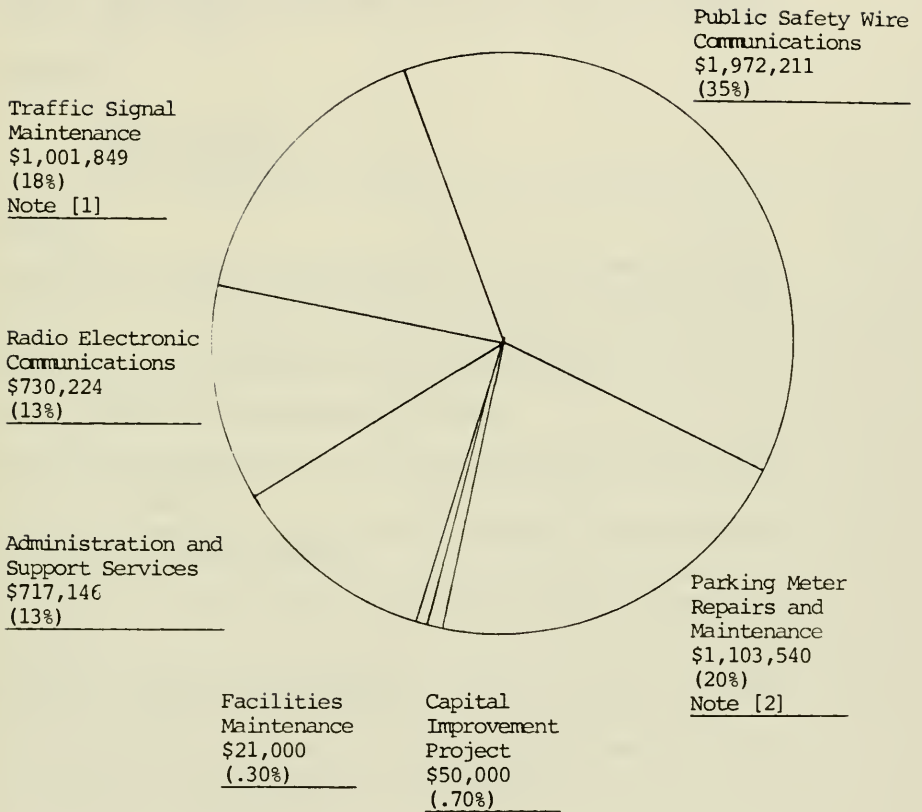
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DEPARTMENT OF ELECTRICITY

BUDGET BY PROGRAM

FISCAL YEAR 1986-1987



Total Budget: \$5,595,970

Note [1] Funded by a Work Order from the Department of Public Works.

Note [2] \$314,769 was funded by the Parking Authority through Work Order.

ADMINISTRATION AND SUPPORT SERVICES DIVISION

Under the general administrative direction of the General Manager, the Principal Accountant directs, plans and supervises the Accounting Section.

PERSONNEL

- 1 - 1654 Principal Accountant
- 2 - 1650 Accountants
- 1 - 1632 Senior Account Clerk

FUNCTION

To disburse funds in accordance with legally approved and authorized expenditure appropriations.

To record revenue receipts and disbursements accurately in properly classified accounts set by the Controller.

To make deposits to the Treasurer's Office.

To carry out directives and fiscal policies set by the Controller's Office.

To provide financial information and schedules for anticipation of future needs and solutions.

To prepare bi-weekly payroll and maintain time records of personnel.

To assist the General Manager in the preparation of the Departmental Budget and MBO Reports.

To file claims on damages of City owned properties under the jurisdiction of the Department of Electricity.

PERFORMANCE AND OUTPUT

The Accounting Section maintained an individual set of computerized books to control and account for the Labor Costs, Materials / Supplies, Contractual Services and other miscellaneous expenditures appropriated for the five major programs of the Department.

In Fiscal Year 1986-87 covered by this report, a total number of 256 Work Orders and Special Jobs from various City Departments have been processed. A separate subsidiary ledger of these Work Orders and Special Jobs have been maintained to account for each job order cost.

Claims for damages on Traffic Signals, Parking Meters and Police & Fire Alarm facilities have been filed against the responsible parties. Follow ups were made by the Accounting / Administration Division to enforce payment. However, there are cases where the Claims filed require legal support and in the event we are unsuccessful in collecting payments within 90 days, the Claim is then forwarded to the Tax Collector's Office, Bureau of Delinquent Revenue for final disposition.

ACCOUNTING AND ADMINISTRATION SUPPORT SERVICES SCHEDULE OF ESTIMATED AND COMPARATIVE REVENUES FOR FISCAL YEARS 1985-86 AND 1986-87

<u>SERVICE</u>	Estimated Revenue 1986-87	Actual Revenue 1986-87	Increase (Decrease)	Estimated Revenue 1985-86	Actual Revenue 1985-86	Increase (Decrease)
Traffic Signals *	\$33,000	\$29,812	(\$3,188)	\$33,000	\$51,338	\$18,338
Parking Meters *	4,000	4,731	731	4,000	6,575	2,575
Police & Fire Alarm Facilities*	3,000	6,098	3,098	3,000	4,398	3,098
Electrical Inspection Fee **	1,800	3,226	1,426	1,800	2,028	1,426
Housemoving Electrical Fee	35	0	(35)	35	0	(35)
TOTAL	<u>\$41,835</u> =====	<u>\$43,867</u> =====	<u>\$2,032</u> =====	<u>\$41,835</u> =====	<u>\$64,339</u> =====	<u>\$22,504</u> =====

Note: * The recovery of damages is deposited to the Treasurer's Office and recorded in the books as a General Fund Revenue.

** These are fees collected for the inspection of overhead line wires and rental of Fire Alarm Boxes from private companies. The fees are also deposited to the Treasurer's office and recorded in the books as a General Fund Revenue.

In addition to the accounting functions, the Division is also responsible for certain administrative and personnel support services.

PERSONNEL

1 - 1424 Clerk Typist
1 - 1452 Executive Secretary II

FUNCTION

To transcribe correspondence from the General Manager's Office.

To provide personnel services for the Department and handles personnel matters with the Civil Service Commission.

To provide clerical and typing support services.

To transmit messages to the Parking Meter Repairers in the field in order to expedite repairs of Parking Meters.

To perform daily trips to the City Hall to deposit checks and pick up and deliver mail and documents.

PROGRAM OBJECTIVE (MBO)

ACTUAL PERFORMANCE

To accomplish 80% of the Department's objectives

80%

To effectively collect 40% of all damage claims involving Traffic Signals, Parking Meters and Police & Fire Alarm facilities.

68%

To effectively provide 75% of requested monthly repairs in support of all programs including buildings, facilities and automobiles.

75%

Note: The overall actual performance by the Department has been affected by the following:

One of the parking meter objectives was not met because manpower was diverted to additional meter installations, repairing vandalism, meter conversions and assisting the Police .

Refer to Page 28 "Parking Meter Program Output" for a more detailed explanation.

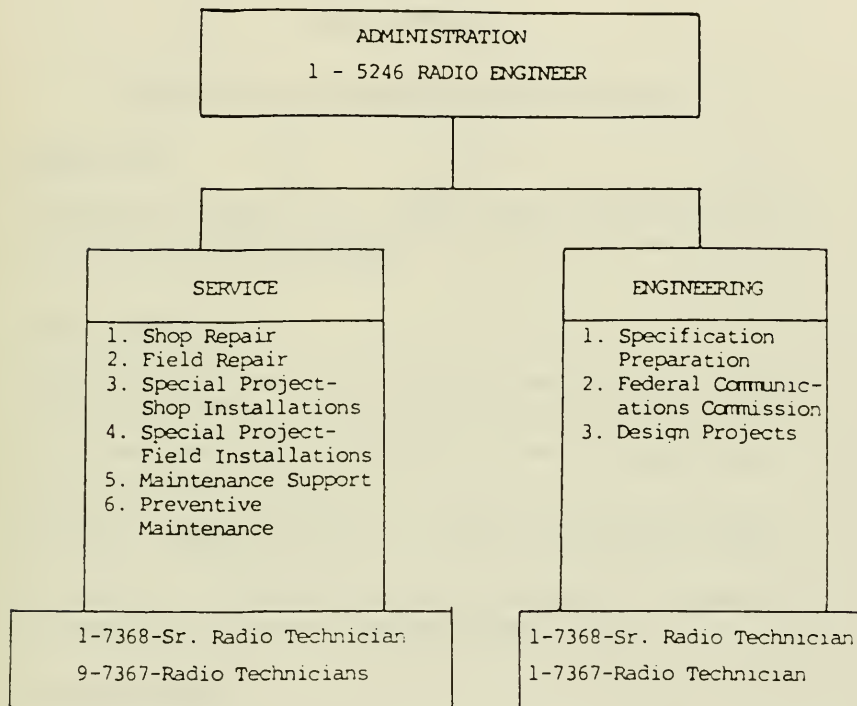
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RADIO-ELECTRONIC COMMUNICATIONS SERVICES PROGRAM



RADIO DIVISION

FISCAL 1986-1987

RADIO ELECTRONIC COMMUNICATIONS SERVICES PROGRAM

PROGRAM GOAL

To effectively consult, plan, design, manage and service radio electronic communication systems for various Departments of the City and County of San Francisco.

PROGRAM OBJECTIVES

To complete the design of 60% of the Engineering Projects within schedule and budget.

To complete preventive maintenance of 15% of fixed Radio / Electronic Equipment annually.

To keep an average of 90% of all Portable and Mobile Radio / Electronic units operational.

To restore to service 80% of the fixed Radio / Electronic Equipment within 4 hours of reported failure.

PROGRAM PERFORMANCE

	<u>85/86</u>	<u>86/87</u>
Engineering design projects completed within schedule	73.07%	69.27%
Fixed Radio / Electronic Equipment preventive maintenance completed within schedule	16.53%	16.92%
Portable Radio / Electronic units operational	99.48%	98.90%
Mobile Radio / Electronic units operational	99.67%	98.88%
Fixed Radio / Electronic equipment restored to service within 4 hours of reported failure	96.57%	99.22%

All program objective targets have been met or exceeded this year. However, we have reduced the preventive maintenance target from 40% to 15% which allows us to meet the target with the personnel we have available. A more desirable target would be 80%, but would require additional personnel that we have requested for this and previous fiscal years, which were denied.

A Radio Technician position remained vacant for approximately six weeks due to an employee retirement and 383 new, additional, fixed, mobile and portable radio equipment has been added this year, both contributing to an increased workload this year over last year.

PROGRAM ACTIVITIES

Radio Engineering and Servicing are the two major functions of the Radio Electronic Communications Services program.

General responsibilities are to consult, plan, design, manage and service the Radio Electronics Communications Systems for the various Departments of the City and County of San Francisco.

This Division provides expertise and services through estimates, specifications, equipment procurement, F.C.C. licensing, installation, inspection, maintenance, repair and service of any City Radio Electronics communications System. This work is done in conformance with Federal communications Commission Rules & Regulations and Industry Standards. Special electronic projects, funded by Inter-Departmental Work Orders, are also part of this Division's responsibility.

SERVICING:

1. Shop Repair Activity

Services malfunctioning Portable and Mobile Radio Electronic Units and vehicular Radio Electronic Systems brought into the Shop from operational systems.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
Vehicle systems serviced	3,559	4,693
Portable & Mobile units serviced	2,502	2,789

2. Field Repair Activity

Maintains fixed field Radio & Electronics equipment at various locations throughout the City.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
Fixed units serviced	2,178	2,250

3. Special Projects

a. Shop installation activity

Perform installation of new and renovated Mobile Radio Electronic Equipment. Inspects and accepts new Portable & Mobile Radio Electronic Equipment before operational use.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
Mobile units installed	217	195
Mobile units removed	232	164
New portable / mobile units inspected and accepted	54	334

b. Field installation activity

Pre-tests, inspects, installs, adjusts and accepts new fixed Radio Electronic Equipment and Systems at various field locations throughout the City.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
New fixed equipment pre-tested inspected and accepted	61	49
New fixed system / equipment installation adjustment and acceptance. (non-recurring projects completed)	5	5

4. Maintenance Support Activity

Service record data is kept for all Portable, Mobile and fixed equipment systems. Stock records and levels are kept to assure availability of necessary items to support the maintenance and repair of all fixed, Mobile and Portable Radio Electronic Equipment. Calibration records are kept for all fixed, Mobile and Portable equipment.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
Service order record data	9,300	9,966
Support requisitions	308	225
F.C.C. calibrations	2,364	2,623

5. Preventive Maintenance

Preventive maintenance is performed on all fixed Radio and Electronic Equipment.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
Preventive maintenance of fixed units	1,393	1,551

ENGINEERING:

1. Engineering Specification Preparation Activity

Develop written specifications that identify the parameters of equipment needed to meet communications requirements. Prepares cost estimates for system design projects and equipment procurement. Performs preliminary studies and field surveys prior to development of specifications.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
Specifications	43	37
Estimates	81	85

2. F.C.C. Licensing Activity

Applies to the Federal Communications Commission for authority to install and operate fixed and Mobile Radio Equipment. Obtains frequency coordination and approval of area communications agencies. Reviews and modifies licenses as required.

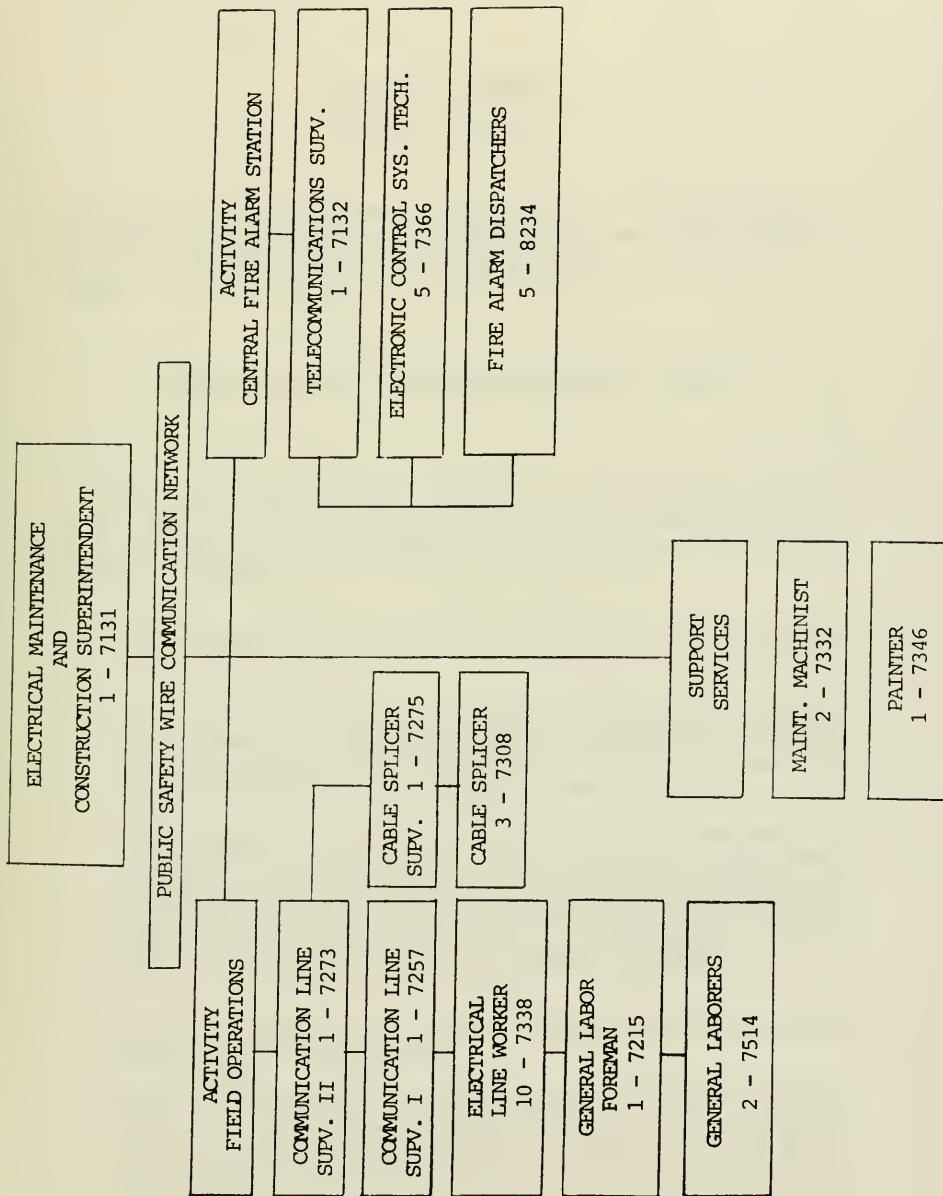
<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
F.C.C. applications	55	69
F.C.C. coordinations	59	87
F.C.C. renewals	31	48

3. Engineering Design Projects Activity

Consults, plans, designs, implements and manages various new projects for the changing needs of City Departments.

<u>Program Output</u>	<u>85/86</u>	<u>86/87</u>
Projects completed	2	3

CHART A



ELECTRICAL DIVISION

FISCAL 1986-1987

The Electrical Division under the direction of the Electrical Maintenance and Construction Superintendent has full responsibility for the Public Safety Wire Communications Network and the Traffic Signal Maintenance and Repair Programs.

PUBLIC SAFETY WIRE COMMUNICATIONS NETWORK PROGRAM

GOAL

To effectively maintain public safety wire line circuits in order to provide timely fire protection, police and emergency responses in compliance with requirements of National Fire Protection Association regarding maintenance and testing.

- Operation and maintenance of the Central Fire Alarm Station on a 24-hour basis.

This activity includes maintenance and service of the computer-assisted Fire Alarm Dispatch System with teletype and voice announce consoles in 44 Fire Stations and associated agencies of the Fire Department.

The Management Data System is interfaced with the computer mainframe at the Central Fire Alarm Station using department cable pairs to Fire Department Headquarters. CRT data terminals and line printers are used by various bureaus of the Fire Department Administrative Headquarters to send, store or retrieve data from the computer mainframe.

- Operation and maintenance of the City's Fire and Police Non-Radio Communication Systems.

This activity consists of maintenance of the Fire Box Alarm System, Police Call-Box System, Police Private Telephone System, Mayor's Emergency Telephone System, Air Raid Siren System, Automatic High Pressure Valve Controls, various critical alarm systems in conjunction with the related wire systems.

PROGRAM OBJECTIVE

	<u>Goal</u>	<u>Achieved</u>
Percentage of Central Fire Alarm Complaints responded to within one hour	95%	95%
Percentage of Fire House Complaints responded to within one hour	95%	95%
Reliability of Fire Alarm Boxes	99%	99%
Testing of Fire Alarm Boxes	12,000	13,050

All of the Department's Public Safety Program goals were met during FY 1986-87. The preventative maintenance has reduced complaints 53% since 1983.

PROGRAM ACTIVITIES

Central Fire Alarm Station

Monitors Fire Box Alarm Panels connected to all street Fire Alarm Boxes. Alarms received are transmitted through the computer which provides the Fire Department Bureau of Communications Assignment Officer with a recommended assignment for dispatch.

Monitors hot lines and registers from private Central Office Fire Alarm Companies.

Tests 50 circuits connected to the Air Raid Siren Warning System daily. Tests sirens on a weekly basis to insure satisfactory operation. Conducts scheduled tests of Fire Alarm Box circuits, dispatch circuits and the emergency generators for the uninterrupted power supply.

Coordinate test and repair activities with field personnel.

In addition to the Program Objectives, other activities carried out by personnel at the Central Fire Alarm Station are:

24-hour radio contact with field personnel for immediate response to emergencies.

Summary of complaints received by personnel during Fiscal Year 1986-87.

Fire Alarm Circuits	360
Fire Alarm Boxes	39
Police Call Box & Locals	7
Fire Station Line trouble	51
SA/TPE Fire Station Equipment*	422
SA/TPE - CFAS**	76

Note: * Teletype & Voice Announce Consoles in Fire Stations

** Command & Control equipment in Central Fire Alarm Station

Public Safety Field Operation

Repair and maintenance of the City's Fire Alarm Box System along with the System's related overhead and underground circuits.

Repair and maintenance of the Police Ring-in Telephone System including the System's related wiring.

Routine replacing of overhead lines and underground cables for preventative maintenance and as needed for repairs.

Testing of the City's Fire Alarm Box System, Auxiliary Fire Alarm Systems connected to 130 Public Schools and supervision of auxiliary connections from various public buildings.

Expansion of the Mayor's Emergency Telephone System:

- Departmental Director of D.P.W. - 54 Army
- Superintendent of Schools - 135 Van Ness
- Police Chief - 3550 Laguna
- Station KALW - 21st and Harrison

have been added.

This operation also has personnel in the field on a 24-hour basis to respond to complaints on Fire Alarm Boxes, Fire Station equipment, Police telephones, Traffic Signals or any other complaint involving City property. This trouble shooting detail is available for immediate response to most emergency situations throughout the City.

In addition to the Program Objective, other activities carried out by personnel in the Public Safety Program field operations were:

Fire Alarm and Police Call-Box Maintenance

- Installed 1 new Fire Alarm Box.
- Modernized 8 Fire Alarm Boxes.
- Repaired 107 Fire Alarm Box movements in the Shop.
- Repaired 43 Fire Alarm Boxes in the field.
- Made repairs to damaged Fire Alarm Boxes at 44 locations.
- Replaced Fire Alarm Box standards on routine at 54 locations.
- Tested 13,050 Fire Alarm Boxes in the field.
- Tested 1,025 School Fire Alarm Boxes in the field.

Traffic Damage and Routine Maintenance

- Assisted the Traffic Division, in the field, at 124 locations.

Overhead Lines and Underground Cables

- Transferred facilities to new PG&E poles at 96 locations.
- Replaced X-arms at 108 locations.
- Performed routine maintenance to overhead lines at 372 locations.
- Performed routine maintenance and cleared trouble in Fire Alarm circuits at 299 locations.
- Replaced defective cables or installed cable in new areas (30,680 feet of various size cable).
- Completed splices at 191 locations.
- Repaired underground cable damaged by "third parties" at 4 locations.
- Installed 495 feet of various size conduit in City streets.

Radio Tower Maintenance (Twin Peaks)

- Relamped Towers #1, #2 and #3 as required.
- Replaced lights on existing street lights on Towers as required.

Air Raid Siren System

- Installed new sirens - 901 Carolina
 - 940 Filbert
- Replaced 3 sirens and 2 control cabinets.
- Installed 20 radio cabinets.

Fire House Maintenance

- Responded to 6 Fire House Station complaints.
- Cleared trouble on 44 command and control circuits to Fire House Stations.

The Following Work Order Projects Were Worked On

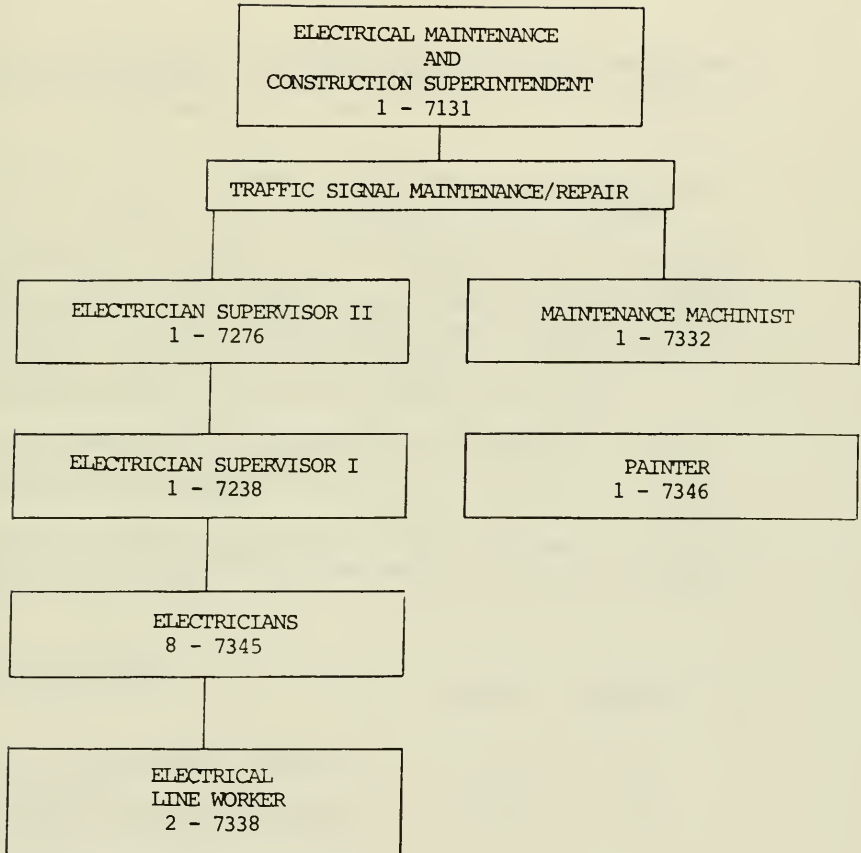
W.O. #60430	-	Air Raid Sirens
#00055	-	Air Raid Sirens
#61246	-	Upper Ashbury Stage I & II
#01141	-	Hall of Justice (Bryant Street new cable)
#01128	-	Legion of Honor - overhead to underground

The Following Special Jobs Were Worked On

S.J. #124	-	School Fire Alarm Box Auxiliary, completed.
#415	-	4th & Mission relocated Fire Alarm Box 2213.
#422	-	Hunters Point UC new Fire Alarm Box installed.
#433	-	Buchanan & Waller UC new Fire Alarm Box installed and completed.

Our continuing preventive maintenance program reflects fewer complaints and better service.

CHART B



TRAFFIC SIGNAL MAINTENANCE AND REPAIR PROGRAM

GOAL

To effectively maintain Traffic Signals along with associated underground cables on a twenty four hour basis in order to provide for efficient traffic flow.

Its activities are to provide field service, installation, Shop repair and overhaul of 966 intersections of Traffic Signals.

This program is funded from gas tax revenue via a work order from the Department of Public Works. Due to decreases in gas tax revenues over the past several years, funding for this program has not kept pace with increases in the cost of materials or wage increases. The end result being that the Traffic Shop is continuing to operate with a reduced staff. Priorities were established to make better use of personnel capabilities.

Prompt response and more importantly, prompt repairs reduces the length of time an intersection remains in a condition which can be hazardous to the Public.

Prime emphasis was placed on prompt response to Citizen complaints, and this objective was achieved in spite of staffing and workload problems.

PROGRAM OBJECTIVES

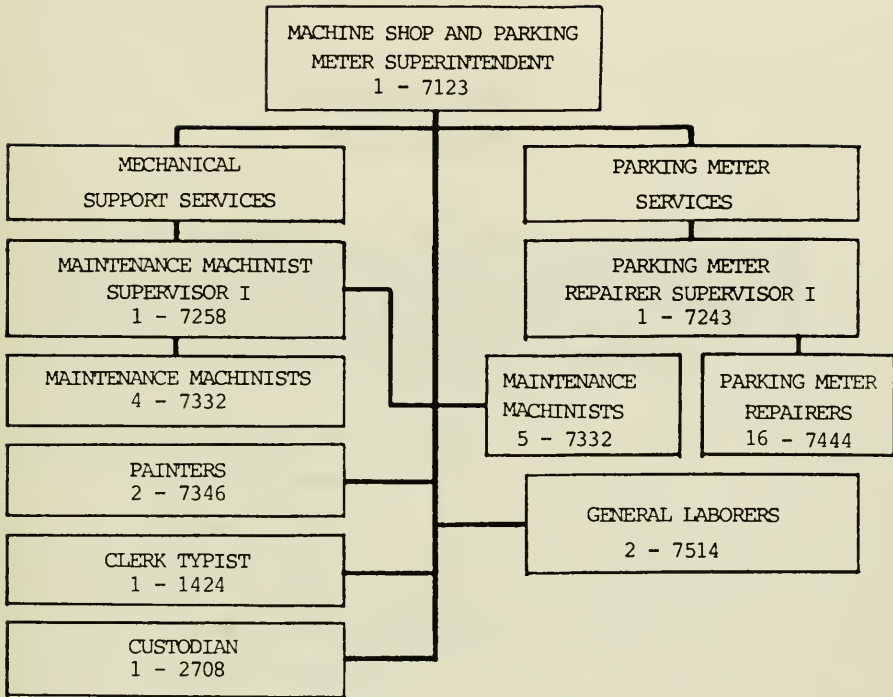
	<u>Goal</u>	<u>Achieved</u>
Number of Intersections Relamped	740	742
Percentage of complaints responded to in one hour	87%	87%
Number of Dispatchers / Controllers replaced and serviced	400	420

This program was instituted to bring the relamping sequence to a more normal relamping schedule based on the life span of a Traffic Signal lamp.

In addition to the Program Objectives, other activities carried out by personnel in the Traffic Signal Program were:

- Responded to 2,099 complaints on a 24-hour basis.
- Made repairs to damaged equipment at 100 locations.
- Made repairs to damaged conduits, and replaced wiring at 43 locations.
- Replaced Signal Heads at 320 locations.
- Made relocations, installations and modifications under Special Jobs at:
 1. Embarcadero Center at Front, Davis - installed Sangamo time switch.
 2. 8th and Brannan - installed Flash-Don't-Walk cabinet.
 3. 4th and Clara - replaced existing signals W-3M and installed 8" signals (S).
 4. Lake Merced and Brotherhood - relocated SCI vehicle signals.
 5. Market, Pine, Davis - replaced damaged IC due to construction.
 6. 19th and Santiago - relocated signals to street light pole.
 7. Sacramento and Battery - relocated signal on SW corner.
 8. Howard and Beale - restored signal to original location.
 9. 5th and Market - replaced 3 existing pedestrians with ICC SE.

MECHANICAL DIVISION



ALLOCATION OF PERSONNEL IN SUPPORT OF VARIOUS PROGRAMS

	<u>PUBLIC SAFETY</u>	<u>PARKING METERS</u>	<u>TRAFFIC</u>	<u>ADMIN.</u>
M.S. AND P.M. SUPT.				1
MAINT. MACH. SUPV. I				1
P.M. REPAIRER SUPV. I		1		
MAINT. MACHINISTS	2	5	1	1
P.M. REPAIRERS		16		
PAINTERS	1		1	
GENERAL LABORERS		2		
CUSTODIAN				1
CLERK TYPIST				1

MECHANICAL DIVISION

FISCAL 1986-1987

The Mechanical Division under the direction of the Machine Shop and Parking Meter Superintendent has full responsibility for the Parking Meter program and is a support service for the Department's other programs and functions, which includes the maintenance, repair and manufacturing of all mechanical equipment under the jurisdiction of the Department of Electricity.

The equipment includes the following:

Fire Alarm Boxes	2,043
Police Call Boxes	471
Desk Set Phones	85
Traffic Signal Intersections	966
Emergency Generators	4
Parking Meters	18,578
Emergency Warning Sirens	50
Gas Driven Equipment (major repairs and servicing done by Purchasing Shop)	51 (Mobile) 4 (Stationary)
Mechanical equipment in the three Department Buildings	All

The maintenance of three Departmental Buildings, the

- Plant at 901 Rankin Street,
- Central Fire Alarm Station at 1003 Turk Street, and
- Central Radio Station on Twin Peaks

was directed by the Machine Shop and Parking Meter Superintendent, though the majority of the work was accomplished by the Department of Public Works, or through contractual services.

The following mechanical services were performed in support of the Public Safety, Traffic Signal, Radio and Administration programs:

MANUFACTURE

Three-fold non-interfering Fire Alarm Boxes were manufactured to replace obsolete ones in the new underground districts. New and replacement parts for Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens and instruments were manufactured in the Machine Shop as needed.

Special mechanical fixtures and apparatus were designed and manufactured to produce functional improvement. Miscellaneous tool and die, experimental projects and equipment tests were undertaken and completed.

MAINTENANCE AND REPAIR

Necessary and vital repairs were made to all mechanical equipment. The Mechanical Division works in close harmony with the Plant, Electrical, Traffic and Radio Divisions of the Department of Electricity and with other Departments of the City to better serve the Public.

PAINTING

Fire Alarm Boxes, Police Call Boxes, Air Raid Sirens, Traffic Signals, Controllers, and other miscellaneous equipment were prepared and painted in the Shop and field. Due to a shortage of personnel, we are on a four to five year painting cycle, rather than a two year cycle recommended for some of the above equipment.

OTHER DUTIES

Data was compiled for the annual budget, necessary specifications for machinery and automotive equipment were written, and requisitions for equipment and supplies were made. Reports and correspondence related to Mechanical Division were processed. Records on all mechanical equipment were kept.

MANUFACTURE, MAINTENANCE AND REPAIR

SUMMARY OF ACTIVITIES

	<u>Total Numbers</u>
1. Manufactured Fire Alarm Boxes, parts and related equipment.	169
2. Repaired Fire Alarm Boxes, parts and related equipment.	568
3. Manufactured Police Call Boxes and related equipment.	21
4. Repaired Police Telephones and related Communications equipment.	87
5. Manufactured Traffic Signal Parts and Special Tools.	1,252
6. Repaired Traffic Signals, parts and related equipment.	362
7. Manufactured and repaired miscellaneous Air Raid Siren parts and related equipment.	22
8. Manufactured and repaired miscellaneous Radio equipment items.	194
9. Manufactured and repaired miscellaneous items for Plant and vehicular equipment	755
10. Manufactured jigs, fixtures, tools, stamping dies and patterns for Machine Shop production and maintenance work.	35
11. All registers and Emergency Generators serviced weekly at the Central Fire Alarm Station at 1003 Turk Street (plus related equipment).	1,677
12. Emergency Generators serviced and tested at Central Radio Station (plus related equipment).	108

THE HISTORY OF THE
CITY OF BOSTON

FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME

BY
JOHN H. COLEMAN

VOLUME I

BOSTON
PUBLISHED BY
J. B. LEECH, 15 NASSAU ST.
1857

PAINTING

SUMMARY OF ACTIVITIES

The following items have been hand prepared or sandblasted, primed and finish coated in the Shop and field:

Total Numbers

FIRE ALARM SYSTEM

Fire Alarm Boxes	257
Fire Alarm Box Posts, Bases, Inner Shells, Sockets, Movement Housings, etc.	123

POLICE COMMUNICATIONS

Police Call Boxes	65
Miscellaneous items - in Shop only	9

TRAFFIC SIGNALS

Vehicular Signals	762
Signal Controllers	112
Walk-Wait Pedestrian Signals	198
Signal Posts, Poles, etc.	769
Traffic Signal Visors & Louvers	176

MISCELLANEOUS

Cabinets, Siren Parts, Ladders (oiled-shellacked) Brackets, Radio Equipment, Parts, Aluminum Strips, Redwood Moulding, Touch up, etc.	64
Painting at three Departmental Buildings	2

PARKING METER PROGRAM

GOAL

To effectively maintain and repair Parking Meters in order to maximize revenues.

PROGRAM OBJECTIVES

To insure effective field service and inspection to 67% of the City's 18,600 Parking Meters daily.

To insure accuracy, dependability and increase years of service by performing a complete overhaul in the Shop to 40% of the Parking Meter mechanisms, annually.

To complete 70% of the Parking Meter post damage repairs and installations daily.

PROGRAM OUTPUT

	<u>1985/86</u>	<u>1986/87</u>
Percentage of Meters serviced daily	67%	64%
Percentage of Meters overhauled daily	38%	40%
Percentage of Meter Posts installed daily	63%	70%

One objective was not met because manpower was diverted to the following:

- Repaired an excessive amount of vandalized meters in the Mission / Valencia area.
- Installed a considerable number of new meter installations.
- Converted automatic meters to manual meters.
- Opening and inspecting coin vaults and cans in an effort to aid Police of a suspected coin pilfering problem.

Revenues from Parking Meters for Fiscal Year 1986-1987 was \$6,837,450.00 which is an increase of \$414,524.00 (6 %) from last year.

SUMMARY OF ACTUAL ANNUAL REPAIRS TO PARKING METERS

COMPLAINTS RECEIVED BY TELEPHONE:

Citizens	97
Collectors	23
Police	<u>33</u>

153

WORK ON METERS:

By #7444 Parking Meter Repairer

Jammed Intentionally Cleared	103,628
Cases Cleaned	22,693
Damaged Meters Removed	663
Exchanged Heads	178
Exchanged Mechanisms	2,491
Exchanged Mechanisms for Cleaning	483
Replaced Coin Carriers	1,008
Hoods Removed	21,094
Tightened Heads	1,001
Tightened T-mounted Bars	31
Mechanical Adjustment Mechanisms	25,578
Mechanical Adjustment Cases	8,331
Meters Installed	1,427
Meters Replaced	1,646
Meters Removed from Service	274
Temporarily out of Service	295
Requested Inspections (OK)	14,574
Routine Inspections	24,114
Replaced Parts to Cases	12,565
Replaced Parts to Mechanisms	7,499
Stuck Coins Cleared	19,297
Serviced Coin Doors	1,348
Serviced Coin Locks	1,491
Replaced Coin Locks	586
Serviced Top Locks	1,491
Stuck Indicators Cleared	1,912
Stuck Signals Cleared	3,555
Stuck Timers Cleared	3,627
Exchanged Defective Cans	545
Replaced Missing Cans	91
Checked for Traffic Fines Bureau	100
Replaced Fire Box Glasses	636
Meters Converted	<u>6,404</u>

290,656

By #7332 Maintenance Machinist

Timers Rebuilt	293	
Mechanisms Cleaned and Overhauled	4,942	
Shop Repairs on Cases	1,252	
Exchanged Mechanisms	1,252	
Prepared Cases for New Meters	2,795	
Repaired Cases in Field	2	
Minor Repairs	341	
Coin Carriers Rebuilt	317	
Collection Boxes Repaired	29	
Coin Can Repaired	98	
Stuck Coin Locks Opened	67	
	<hr/>	11,388

By #7346 Painter

Meter Case Units Painted	308	
	<hr/>	308

WORK ON POSTS:

By #7514 Laborer

Straightened	679	
Removed	167	
Relocated	224	
Installed	563	
Replaced	557	
Reset	974	
	<hr/>	3,164

By #7444 Parking Meter Repairer

Straightened	1,347	
Tightened Loose Posts	91	
Replaced Flanges	107	
	<hr/>	1,545

By #7332 Maintenance Machinist

Welded Posts in Field	0	
	<hr/>	<hr/>
		0

TOTAL REPAIRS TO PARKING METERS AND POSTS	307,214	
	=====	

INVENTORY OF PARKING METERS

Month of June 1987

<u>District</u>	<u>Number</u>	<u>Number in off-street Parking Lots</u>	<u>Annual Percentage Changed</u>
A Sunset - Taraval, West Portal	1,192	69	4%
B Richmond	1,003	224	8
C Fillmore, Divisadero	895		(1)
D Polk	1,001	46	6
E Polk, Tenderloin	842		5
F Marina, N. Point, Embarcadero	1,428	113	12
G North Beach	965		5
H Financial	1,220		42
I Chinatown, Union Square	654		
J Tenderloin, Union Square	849		1
K Civic Center	1,225		15
L Third, San Bruno, Bayshore	673	27	1
M South of Market - East	911		7
N South of Market - West	987		
O Outer Mission, Ocean	689	73	1
P Central Mission, Army, 24th St.	713	20	
R Central Mission	705	312	3
S Sunset, Haight, Richmond	879	117	11
T Outer Mission, Valencia	707	39	1
Total	<u>17,538</u>	<u>1,040</u>	
OVERALL TOTAL	18,578		7%
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